Envelope Imager XT 3.0
Envelope Imager XT 4.0

OPERATIONS MANUAL

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Serial Number: _____

Purchase Date: _____

Purchased From:

Dealer Name: _____

Contact Name: _____

Address: _____

Address: _____

Phone Number: _____

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Use the following "Warranty Registration" link to register your product with Rena Systems. http://www.renausa.com/support_warranty.htm

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Section 1 – Getting Acquainted

Safety Precautions

THIS EQUIPMENT PRESENTS NO PROBLEM WHEN USED PROPERLY. HOWEVER, CERTAIN SAFETY RULES SHOULD BE OBSERVED WHEN OPERATING THE PRINTER.

BEFORE USING THE PRINTER, YOU SHOULD READ THIS MANUAL CAREFULLY AND FOLLOW THE RECOMMENDED PROCEDURES, SAFETY WARNINGS, AND INSTRUCTIONS:

- ✓ Keep hands, hair, and clothing clear of rollers and other moving parts.
- ✓ Avoid touching moving parts or materials while the machine is in use. Before clearing a jam, be sure machine mechanisms come to a stop.
- ✓ Always turn off the machine before making adjustments, cleaning the machine, or performing any maintenance covered in this manual.
- ✓ Use the power cord supplied with the machine. Plug it into a properly grounded wall outlet located near the machine and easily accessible. Failure to properly ground the machine can result in sever personal injury and/or fire.
- ✓ The power cord and wall plug is the primary means of disconnecting the machine for the power supply.
- ✓ DO NOT use an adapter plug on the line cord or wall outlet.
- ✓ DO NOT remove the ground pin from the line cord.
- ✓ DO NOT route the power cord over sharp edges or trapped between furniture.
- ✓ Avoid using wall outlets that are controlled by wall switches, or shared with other equipment.
- ✓ Make sure there is no strain on the power cord caused by jamming between the equipment, walls or furniture.
- ✓ DO NOT remove covers. Covers enclose hazardous parts that should only be accessed by a qualified service representative. Report any damage of covers to your service representative.
- ✓ This machine requires periodic maintenance. Contact your authorized service representative for required service schedules.
- ✓ To prevent overheating, do not cover the vent openings.
- ✓ Use this equipment only for its intended purpose.
- ✓ Follow any specific occupational safety and health standards for your workplace or area.

This manual is intended solely for the use and information of Rena Systems Inc., its designated agents, customers, and their employees. The information in this guide was obtained from several different sources that are deemed reliable by all industry standards. To the best of our knowledge, that information is accurate in all respects. However, neither Rena Systems Inc. nor any of its agents or employees shall be responsible for any inaccuracies contained herein.

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Packaging/Shipping

The printer is shipped in appropriate packaging so that, under normal shipping conditions, it reaches its destination without damage.

NOTICE: Report damage to the carrier. The carrier is liable for any damage during transport. Transport and storage should take place under normal conditions, i.e. at temperatures between +5°C and +70°C and relative air humidity of up to 80%. Exposure to conditions that are not permissible may lead to damage which is not externally visible.

Remove the Styrofoam Shipping Blocks from the printer and save them, along with all the other packaging materials for the printer.

NOTICE! Please save the packaging materials for future use! It will be required if you ever need to ship the printer.

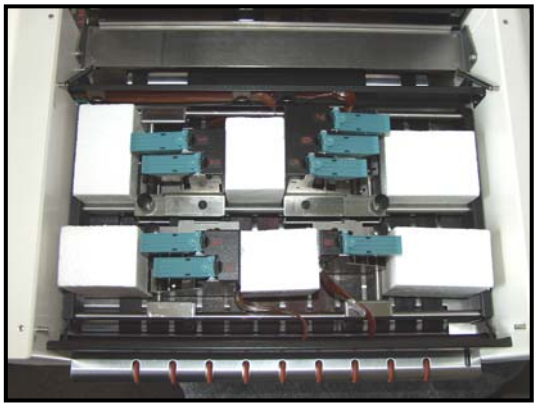


Figure 1

Contents

The following items are included with your printer:

1 Power Cord

1 Feeder Interface Cable (Part #: 35E-500-196) for connecting the EasyFeed 120 feeder to the printer.
Tip: This cable can be used on other Rena feeder models as well; but can NOT be used on the EasyFeed Lite or AF500 feeders.

1 Driver Installation CD ((Operations Manual (PDF) included on this CD))
Note: The printer drivers on this CD have been tested and approved by Rena Systems.

Note: Parallel and USB interface cables and Ink cartridges are not included with the printer.
Interface USB cables (recommend 6 ft or less) can be purchased from computer and office supply stores.
Ink cartridges can be purchased through your local Rena dealer.

System Requirements

- Pentium III-class PC (500 MHz or higher recommended)
- Windows 98, Windows NT 4.0 (Service Pack 6 or higher), Windows 2000 or Windows XP. You must have administrative privileges on the system.
- Microsoft Internet Explorer 5.0 or higher.
- System memory depending on your operating system.
- At least 120 Mb free hard-disk space.
- CD-ROM drive
- Centronics Parallel and or USB port

Operator View

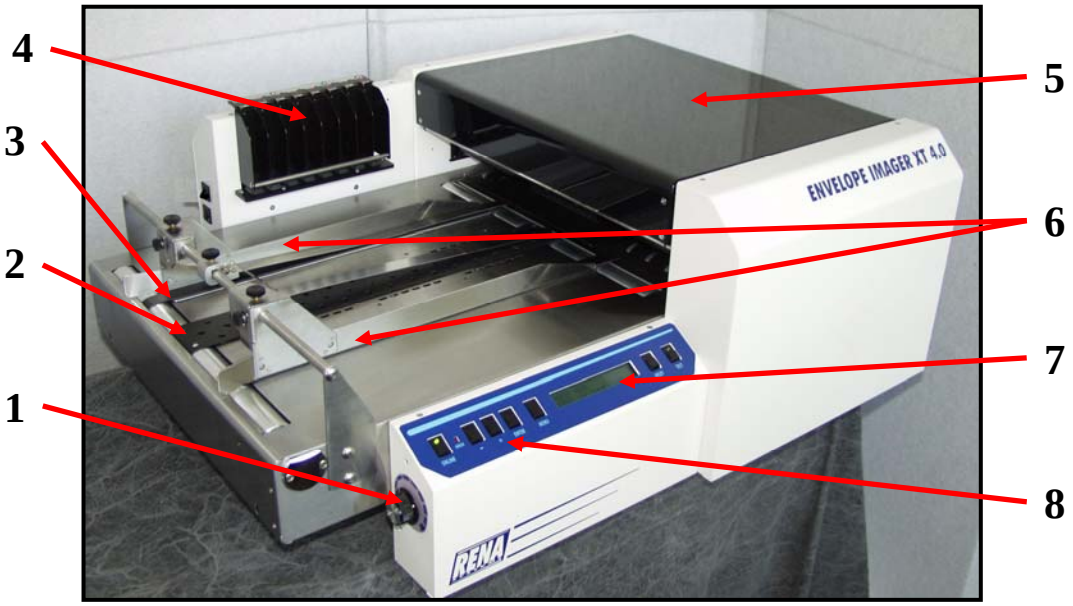


Figure 2

1.	**MEDIA THICKNESS ADJUSTMENT DIAL–** The dial on the left side of the control panel is used to adjust the height of the print heads to compensate for different media thickness.
2.	**VACUUM TRANSPOT BELT** – Transports the media to the printheads. This belt position is stationary.
3.	**OUTER TRANSPORT BELTS –** Supports and outside edges of the media for proper transport. These belts are repositionable. See Section 2 "Setting Up the Transport System".
4.	**CARTRIDGE DOCKING STATION** – The ink cartridges can be stored here when not in use.
5	**PRINT-CARRIAGE COVER** – Encloses the printhead carriage and media transport rollers/belts.
6.	**MEDIA SIDE GUIDES –** Used to center the media in the printer and provide straight feeding of media.
7.	**LCD DISPLAY** – Displays information about the status of the printer.
8.	**PRINTER CONTROL PANEL** – The keys on the printer control panel are used to operate the printer.

Rear View

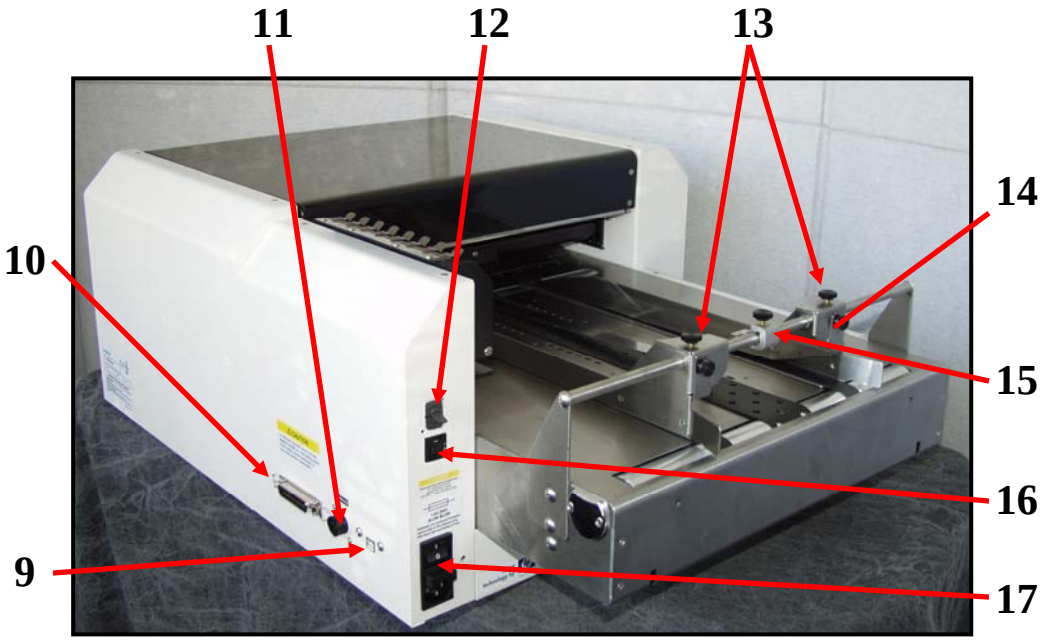


Figure 3

9.	**USB PORT** – Connects the printer to the USB port of your computer.
10.	**PARALLEL PORT** – Connects the printer to the Centronics Parallel port of your computer.
11.	**FEEDER INTERFACE CONNECTOR** – Allows connection to an optional feeder, so the printer can stop/start the feeder appropriately.
12.	**VACUUM SWITCH** – This switch controls the power to the vacuum fans.
13.	**MEDIA SIDE GUIDE SECURING KNOBS –** Used to secure the positions of the Media Side Guides.
14	**OUTER HOLD-DOWN STRAPS & SECURING KNOBS –** Holds down the sides of the media to help guide it under the printheads.
15.	**MEDIA HOLD-DOWN STRAP & SECURING KNOB** – Holds down media to help guide it under the printheads.
16.	**MOTOR CIRCUIT BREAKER** – The circuit breaker protects the printer's motor from overload.
17.	**MAIN POWER SWITCH & POWER RECEPTACLE** – This assembly contains the Main Power Switch, Power Receptacle and Line Fuses.

Print Carriage View

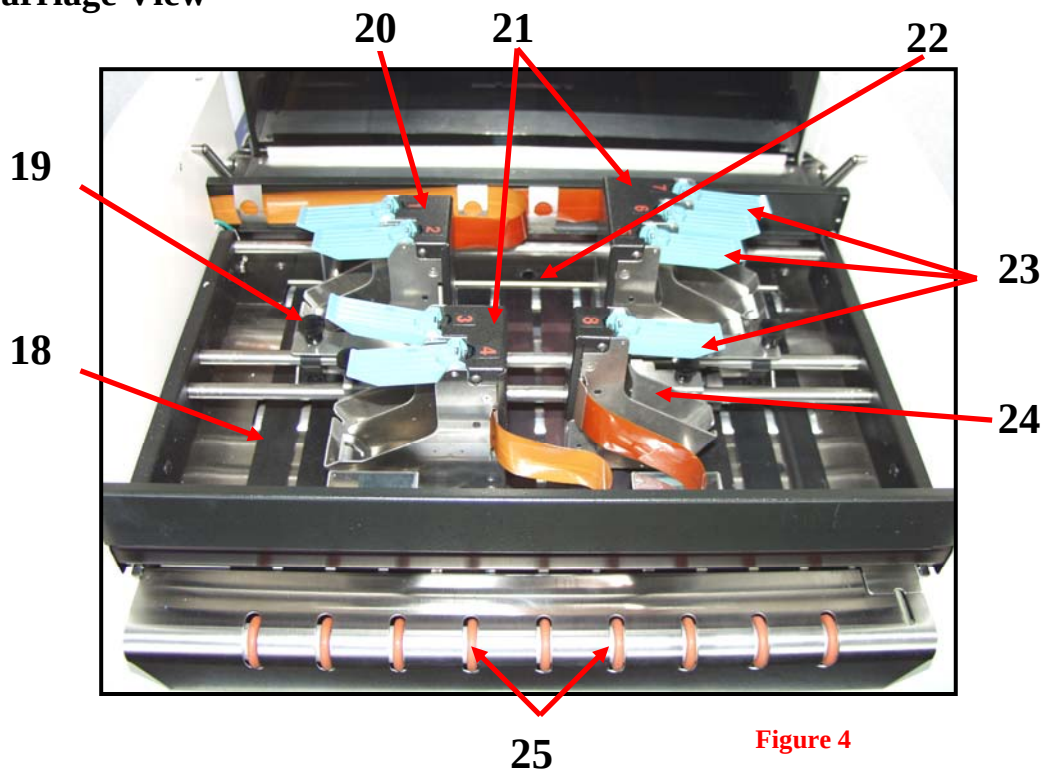


Figure 4

18.	**MEDIA TRANSPORT BELTS** – Drives the material through the system.
19.	**PRINT UNIT SECURING KNOBS** – Used to secure the print unit positions.
20.	**ENVELOPE IMAGER XT 4.0 PRINT UNIT / MEDIA TRANSPORT GUIDE** Envelope Imager XT 3.0: A Media Transport Guide will be located here. This device can be positioned to improve material transport. Envelope Imager XT 4.0: Two additional pen stalls, as shown above.
21.	**PRINT UNITS** –Hold the inkjet cartridges. Used to adjust the vertical print position. The Envelope Imager XT 3.0 contains 3 Print Units; one capable of holding a single cartridge, one is capable of holding 2 ink cartridges and one capable of holding 3 ink cartridges (6 ink cartridges, for a total of 3" print height) The Envelope Imager XT 4.0 (shown above) contains 4 Print Units; one is capable of holding 3 ink cartridges, two are capable of holding 2 ink cartridges each and one is capable of holding 1 ink cartridge. (8 ink cartridges, for a total of 4" print height)
22.	**MEDIA SENSOR** – Keep this area clean (see Section 4 "Maintenance").
23.	**INK CARTRIDGE LATCH LEVERS** – Secures the inkjet cartridge into the Pen Stall.
24.	**PEN STALL** – The area where the inkjet cartridge is inserted.
25.	**EXIT ROLLERS** – These adjustable rollers help to smoothly eject the media from the unit.

Control Panel

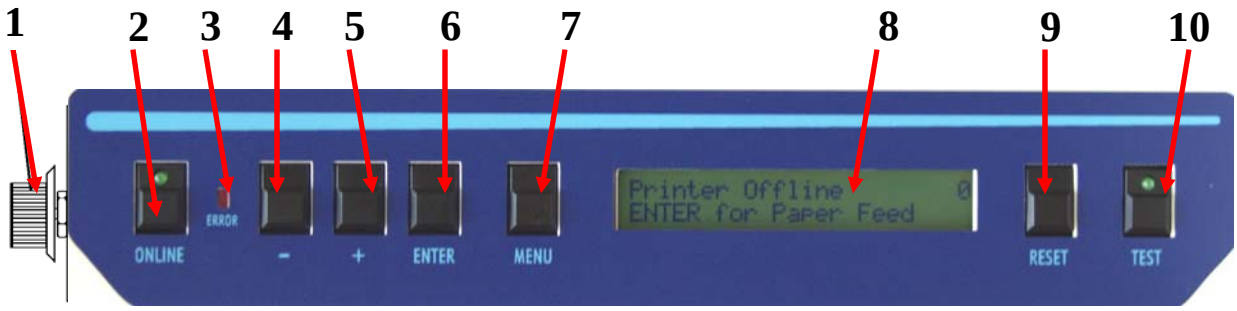


Figure 5

1.	**MEDIA THICKNESS ADJUSTMENT DIAL–** The dial on the left side of the control panel is used to adjust the height of the print heads to compensate for different media thickness.
2.	**ON LINE key** – This key is used to put the printer on/off line. ***LED "slow flash"*** = Printer is powered on, but off-line. ***LED "on"*** = Printer is on-line Note: The printer must be off-line to access the menu modes or TEST print.
3.	**ERROR Indicator** – This indicator lights when there is a problem with the printing process.
4.	**- key** – In the menu mode this key will scroll to the previous selection.
5.	**+ key** –In the menu mode this key will scroll to the next selection.
6.	**ENTER key** – This key is used to start/stop media feed. When the printer is placed in any of the menu modes, the ENTER key is used to select the options available. When the printer is off-line this key is used to start the Paper Feed function.
7.	**MENU key** – This key causes the printer to enter the menu mode where several operator functions can be accessed.
8.	**LCD DISPLAY** – Indicates the status of the printer including piece count, menus, and error messages.
9.	**RESET key** – Holding down this key, until all LED's light momentarily, will reset the printer to its normal ready state.
10.	**TEST key** – Pressing this key will put the printer into the test pint mode (LED on); allowing the printer's internal "test image" to be printed.

NOTE: A complete description of the functions and operation of the printer keys can be found in Section 3 – Operating the Printer.

Notes

Section 2 – Printer Installation and Setup

Before using the printer, the following must be done:

- Choose a location for the printer and optional feeder
- Connect power to the printer
- Connect the appropriate feeder interface cable between the printer and feeder
- Connect it to the computer
- Install the Inkjet Cartridges
- Position the Print Units

Choose a Location

The printer should be placed on a sturdy worktable or cabinet at least 12 inches from any walls. Protect the printer from excessive heat, dust, and moisture – avoid placing it in direct sunlight.

Connecting Power to the Printer

1. Make sure that the main power switch of the Printer is in the OFF (0) position.
2. Verify that the power source is the correct voltage for your printer, and it is properly earth grounded. The use of a surge protector is recommended.
3. Connect one end of the power cord to the rear of the Printer in the corresponding receptacle.
4. Plug the other end into a 115 Volt AC, 50/60 Hz. Grounded outlet.

Figure 6

CAUTION

Do not use an adapter plug or extension cord to connect the printer to the wall receptacle.

Do not use outlets controlled by wall switches.

Do not use an outlet that shares the same circuit with large electrical machines or appliances.

Surge Protectors are recommended.

Connecting to the Computer

- **USB Users**: Plug the USB cable from your computer, into the printer's USP USB Port, located next to the parallel port connector.
- **Parallel Users**: Plug the parallel printer cable from your computer into the printer's Parallel Port and latch the two locking clips.

Figure 7

Figure 8

NOTE: The cable used to connect the printer to the computer must not exceed 6 feet long. The parallel port may be used for all versions of Windows. The USB Port is used only for Windows ME, 2000, and XP.

Connecting the Optional Feeder to the Printer

A number of different RENA Feeder models can be used with the Envelope Imager XT3.0/XT4.0.

Note: Please refer to the operations manual provided with your feeder for feeder setup instructions.

A Feeder Interface Cable must be attached between the printer and feeder, as shown in Figure 9, so that the printer can stop/start the feeder appropriately.

The feeder interface does NOT control feeder speed. The operator must manually adjust the speed of the feeder to be slower than the printers transport speed. A gap of approximately 1 inch or more should be present, between each piece of media as it feeds under the print units. If the speed of the feeder is set too fast, media will over-lap as it feeds and cause jams in the printer.

Printer Connection

Feeder Connection
(RENA EasyFeed 120 shown)

Figure 9

Please use the appropriate cable (listed below) to connect the printer to your Rena feeder.

FEEDER INTERFACE CABLES	
PART #	**DESCRIPTION**
*97E-500-193	CABLE C: EasyFeed 120 Feeder, to Envelope Imager XT3.0/XT4.0 Printer
35E-500-196	CABLE D: EasyFeed 120 Feeder, to T-750 Tabber, and XT3.0/XT4.0 Printer
35E-500-194	CABLE E: EasyFeed 120 Feeder, to T-950 Tabber, and XPS-ProTab4.0 / T-950 Tabber and XT3.0/XT4.0 Printer.
35E-500-197	CABLE F: EasyFeed Lite Feeder, to T-750 Tabber, and XT3.0/XT4.0 Printer
* cable included with printer.	

Note: Cables made for use with the EasyFeed 120 feeder may also be used with the RENA XPS-ProFeed and EasyFeed 200 feeder models.

CAUTION!
These cables can NOT be used with the EasyFeed Lite or AF500 feeder models. Using these cables with inappropriate feeders will cause damage to the printer and or feeder.

Installing the Ink Cartridges

The Envelope Imager XT 3.0 can accommodate six inkjet cartridges and the Envelope Imager XT 4.0 can accommodate eight inkjet cartridges. Inkjet cartridges are installed as follows:

- Remove the inkjet cartridge from its packaging, taking care not to touch the copper contacts or the nozzle plate. Remove the protective tape from the inkjet cartridge.
  See "Appendix B" for a list of ink cartridges that are available for your printer.
- The cartridges are held in place by a latch lever mounted on the inkjet cartridge holder (pen stall). Release the lever by raising it vertical.
- With the cartridge's nozzle plate pointing down, slide the cartridge into the pen stall and push down and toward the contacts in the pen stall.
- Make sure the cartridge is seated in the pen stall then close the latch lever to secure the cartridge in the pen stall. Do not force the lever into place. (See the diagram.)
- Reset the ink level monitor for this cartridge.
  See "Ink Level Monitor Reset" below.
- Repeat the above for the remaining cartridges.

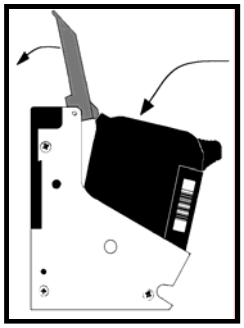


Figure 10

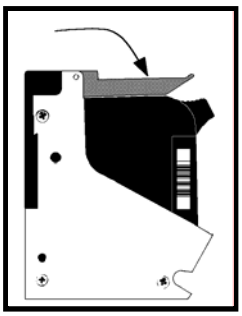


Figure 11

Ink Level Monitor Reset

The printer can automatically calculate the approximate ink level available in each cartridge. It does this using a drop count method. When the level is calculated as being low (~5% ink remaining in the cartridge) the printer will stop and display "***Head # Low. Press Enter***.". After you press Enter, you can choose to ignore the warning or you can check the cartridge. If the cartridge is almost empty, you should replace the cartridge and reset the Ink Level Monitor using the flowing procedure.

- Press the **MENU** key momentarily.
- Use the "+" or "-" key to highlight "Enter when head (*n*) is filled".
- Press the **ENTER** key and install a new cartridge.
- Repeat for each cartridge you install. When the ENTER key is pressed the display will change to "Head (*n*) has a new cartridge".

NOTE: This feature is only valid if the cartridges remain in their original positions, where they were first installed. If you swap the cartridges from one stall position to another, the calculated ink levels will not be accurate. It is suggested that you tag the cartridges with their original position number.

Quick Ink Level Monitor Reset (all Heads): Power the printer on while holding down the MENU key, until the printer displays "Resetting all Ink Levels in Flash". Then release the MENU key.

To check the level of ink in the cartridges, Press and hold the TEST key until the "Service Menu" appears. Use the "+" or "-" key to scroll to the "Service Menu: Ink Levels, 100%100%100%". This will show how much ink remains in the cartridge.

> ⚠ The ink in the cartridge may be harmful if swallowed. Keep new and used cartridges out of reach of children. Discard empty cartridges immediately.

Setting Up the Transport System

Media Side Guide and Transport Belt Adjustment

1. Loosen the Side Guide Securing Knobs and slide the Media Side Guides [1] apart, as shown in Figure 12 It is not necessary to move the Media Hold Down Strap [2].

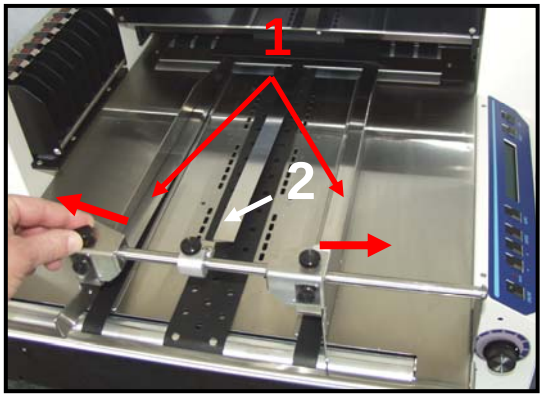


Figure 12

2. Reposition the Outer Transport Belts as shown in Figure 13, so they accommodate the width of your media. The Outer Transport Belts can be moved by running the printer (putting the printer in Paper Feed mode) then sliding the belt guide adjusters, located under the entrance end of the printer, as shown in Figure 14.

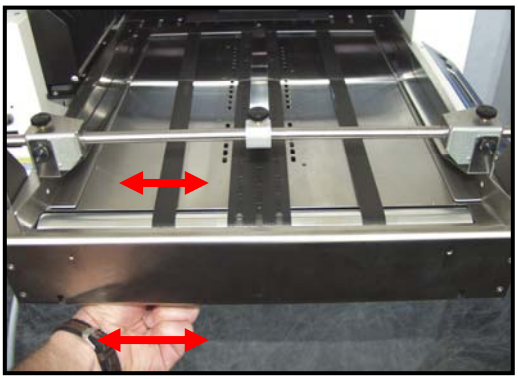
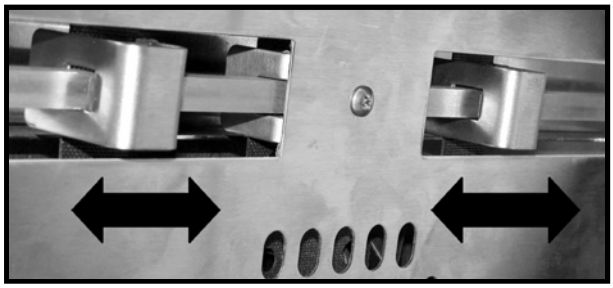


Figure 13



Belt Guide Adjusters
(as viewed from under printer)

Figure 14

3. Slide one piece of media, centered, in the entrance end of the printer, as shown in Figure 15, and adjust the Media Side Guides to the width of the media, plus 1/32”, as shown in Figure 16.

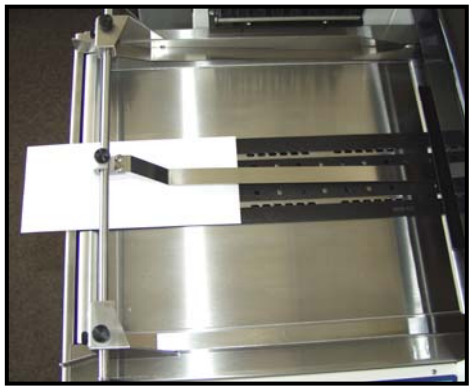


Figure 15

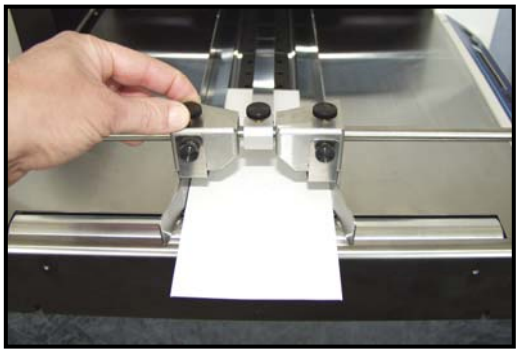


Figure 16

IMPORTANT!
The two Outer Transport Belts should be adjusted so they ride over the bottom lip of the Media Side Guides and are positioned very close the Media Side Guides, but not rubbing against them, as shown in Figure 17.

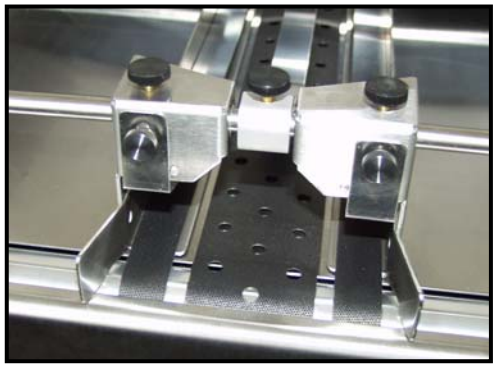


Figure 17

4. Position the Media Hold-Down Strap [2] so that it helps hold the media down, as shown in Figure 18.

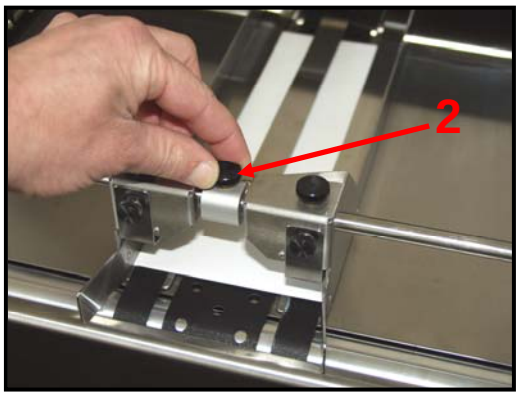


Figure 18

5. If needed; turn on the vacuum assist fans.
The center belt has a vacuum assist feature that can be turned on with the Vacuum Switch located above the motor circuit breaker, as shown in Figure 19. The vacuum assist is useful when feeding smaller and lighter materials.

Figure 19

Media Thickness Adjustment

The printhead carriage height must be set to accommodate the thickness of the media you will be feeding. This printer incorporates a servo motor to control the height of the carriage.

1. Make sure the printer is off-line. If on-line, press the ONLINE key to take it off-line.
2. Press the MENU key, then use the +key to scroll to the menu item "Media Thickness Setup". Press the ENTER key to select this feature.
3. Turn the Media Thickness Dial [A] fully clockwise, as shown in Figure 20. This will cause the servo motor to raise the printhead carriage to its highest position.
4. Place a piece of media [B], under the upper pressure rollers [C], as shown in Figure 21.
5. Slowly adjust the Media Thickness Dial [A] counter-clockwise until the upper pressure rollers [C] touch and hold the Media [B] securely.
6. When properly adjusted the Media [B] will be securely captured between the upper pressure rollers [C] and the lower transport belts. It should require a moderate amount of force to pull the Media [B] from under the pressure rollers.
   Tip: Make a note of the Media Thickness Dial position, as a reference for future adjustment when using this particular media.
7. Press the MENU button to exit out of the "Media Thickness Setup" mode.

NOTE: The printer will automatically raise the printhead carriage to its highest position, when you exit the "Media Thickness Setup" mode. When the printer is told to print or feed material, it will automatically lower the carriage to your preset value.

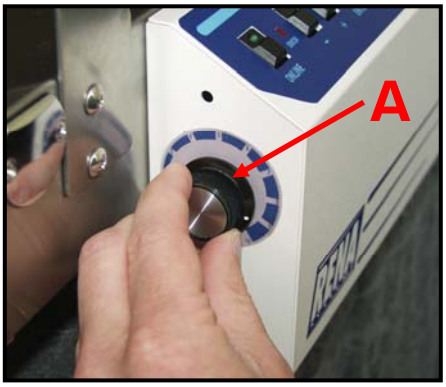


Figure 20

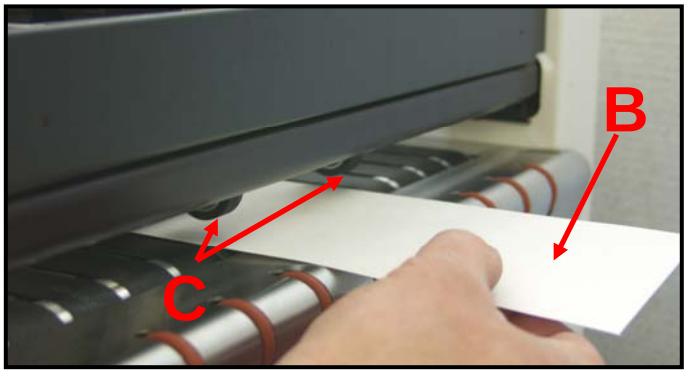


Figure 21

The chart below can be used as a general guideline for setting the position of the Media Thickness Dial [A].

Media Thickness	Dial Setting
.004" to 1/32"	0 to 2
1/32" to 1/16"	2 to 3
1/16" to 1/8"	3 to 5
1/8" to 1/4"	5 to 7
1/4" to 3/8"	7 to 10

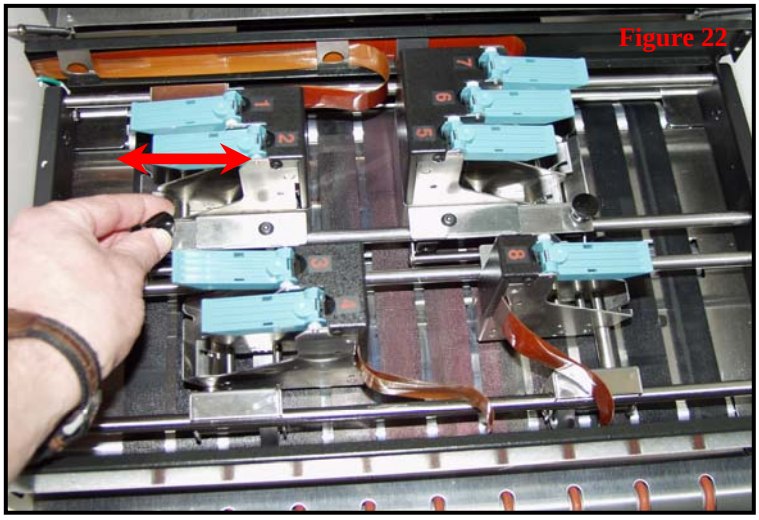
NOTE: The chart shows general guidelines. It is best to adjust the carriage height using the procedure outlined above.

Print Unit Positioning (Vertical Address Positioning)

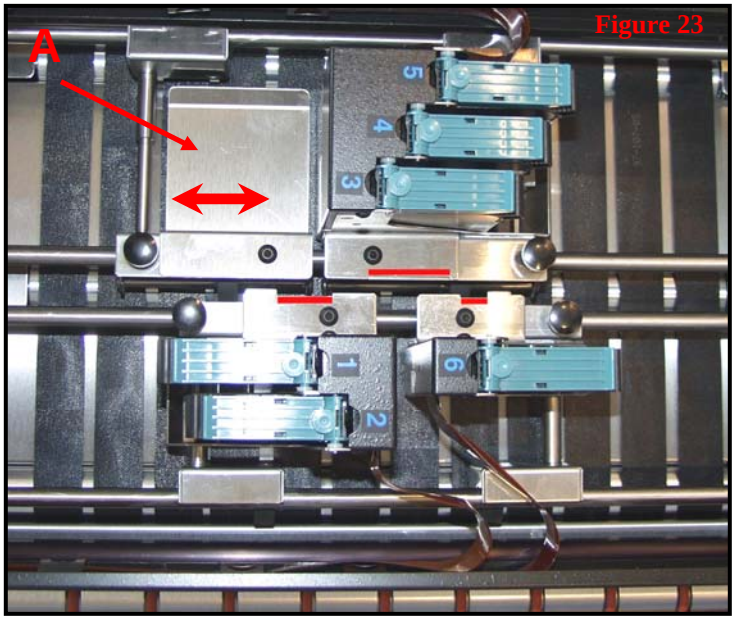
The print units are the device that contains the pen stalls and inkjet cartridges. To adjust the vertical position of the address (printed image) on the media, you must move the Print Units to the desired print positions.

1. Loosen the Print Unit Securing Knobs. See Figure 22.
2. Slide the Print Units to the desired positions as shown in Figure 22.
3. Tighten the Print Unit Securing Knobs.
4. ***Envelope Imager XT 3.0 Only***. Reposition the Paper Transport Guide [A] so that it helps hold down the media before it enters under cartridges 1, 2 or 6, as shown in Figure 23.

Note: The printer's default orientation is "up-side-down" as viewed from the operator side. This is considered "normal" orientation. Horizontal print position is adjusted via your software (mailing program).



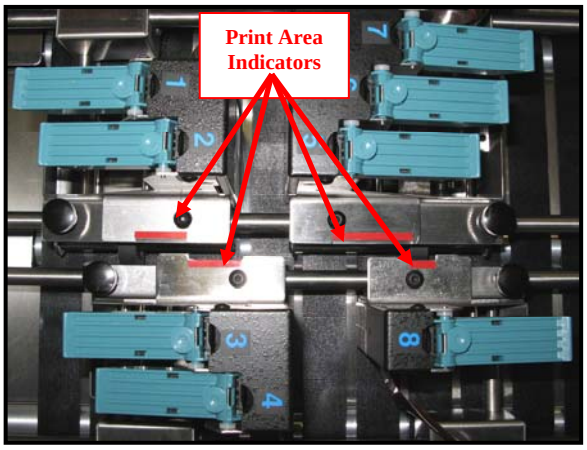
Envelope Imager XT 4.0



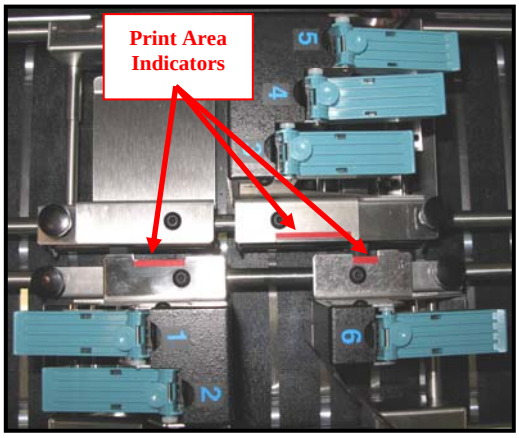
Envelope Imager XT 3.0

Print Area

Note: The RED tape, shown in Figure 24, provides a visual indicator of the print area for each Print Unit.



Envelope Imager XT 4.0
Print Area Indicators



Envelope Imager XT 3.0
Print Area Indicators

Figure 24

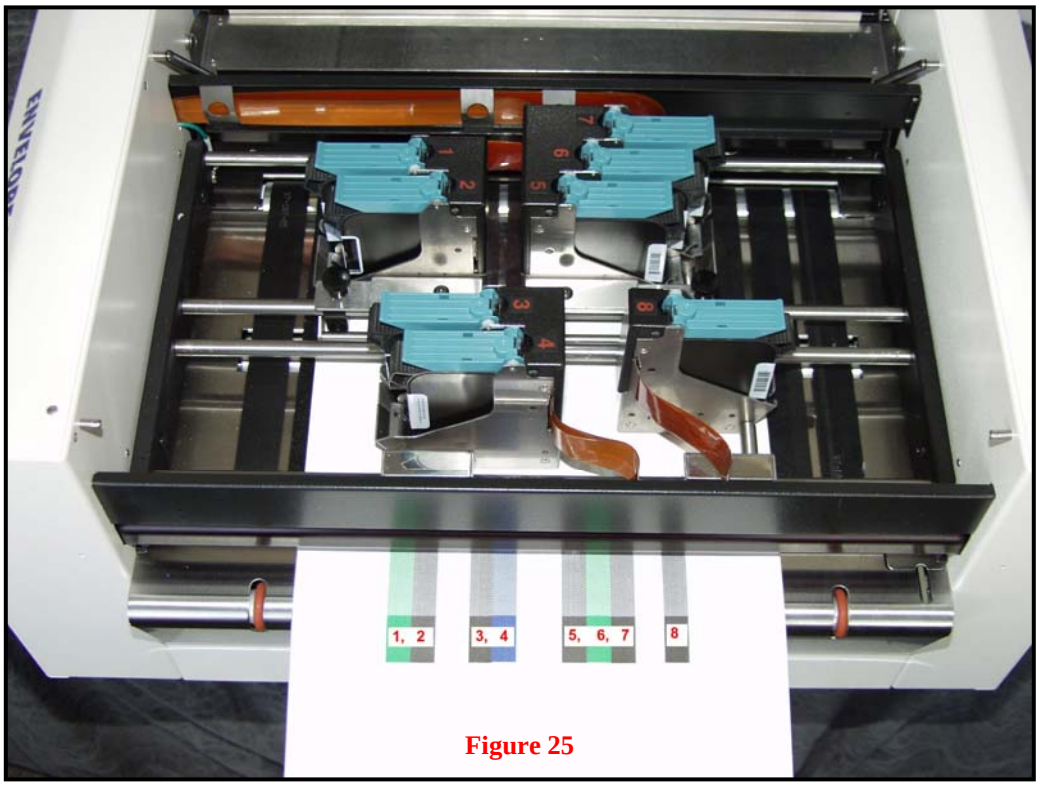


Figure 25

Envelope Imager XT 4.0 Print Area Shown Above

Paper Feed (Media Transport) Test

Test for proper media transport.
If the printer is setup properly, it should feed the media without hesitation, skewing or jamming.

1. With the printer off-line, press the **ENTER** key, to start the Paper Feed feature (feeds material without printing).

2. Press **ENTER** again to stop the Paper Feed feature.

TEST Print

When off-line, the TEST key can be used to print a TEST image.
The TEST image can be used to:

- Check the vertical print position.
- Demonstrate the printer.
- Check the condition or the ink cartridges.
- Check the function of the printer.

Note: A 6”x9” mail piece is required to print the “factory TEST image” with the Envelope Imager XT 4.0.
A #10 envelope can be used to print the “factory TEST image” with the Envelope Imager XT 3.0.
Horizontal print position is adjusted via your software (mailing program).

Customizing the TEST Print Image:
The TEST print image can be changed to any image you desire, by using the following procedure:

1. Power the printer on while holding down the TEST key.
2. From your computer; send an image that you would like to be the new TEST image.

Note: Turning the printer on, while holding down the TEST key, will erase the previous TEST image. If a new TEST image is not loaded, then a TEST image will not be available to print when you press the TEST key.

Notes

Section 3 – Operating the Printer

This Section assumes that you have setup the feed system and connected the printer to your computer.

Printer Control Panel & MENU Features

The printer control panel keys can be used to access various functions that help the operator control the printer. These functions and their operation are as follows:

ENTER key

The **ENTER** key is used to start/stop media feed. When the printer is placed in any of the Menu modes, the **ENTER** key is used to choose the options available in the Menu.
Tip: To allow the printer time to finish printing pieces currently under the print carriage, use the **ENTER** key to stop media feed, before taking the printer off-line.
Media Transport (Paper Feed) Test: Pressing **ENTER** when the printer is off-line, will activate the Paper Feed Test feature (media will be fed without printing).

TEST key

Pressing the **TEST** key momentarily, places the printer in the test print mode. The word "Working" appears in the lower half of the display and after a short period of time the display changes to "Enter to feed". Pressing the **ENTER** key will start the feeding process (test images printing). To stop feeding press, **ENTER** again.
Tip: A 6" x 9" mail piece is required to print the "factory TEST image" with the Envelope Imager XT 4.0.

To restore the printer to the normal ready mode press the **ON LINE** key to take the printer off line and then press and hold the **RESET** key until the LED on the **TEST** key blinks. The printer is then restored to its normal ready state.

Pressing and holding the TEST key will place the printer into the "Service Menu".

Service Menu: Pressing and holding the **TEST** key will cause the printer to enter into the "Service Menu" where the various functions of the printer can be tested. To exit the "Service Menu", turn the printer **OFF**, then **ON** again. The service menu is primarily used by service technicians to diagnose problems, should they occur. You can use the "+" or "-" key to scroll through the menu. Pressing the **ENTER** key will test the function. To restore the printer to its normal mode, turn it **OFF** then **ON**.

MENU key

The **MENU** key is used to access the special features built into the printer. The basic features are accessed by momentarily pressing the **MENU** key. Use the "+" or "-" keys to access the features. The features available under this mode of operation are as follows:

Media Thickness Setup – This feature is used to set the correct carriage/printhead height for the media being used. See "Media Thickness Adjustment" for more details. To activate this feature, press ENTER**.** The Media Thickness Dial can then be used to change the carriage height.

Press Enter to Purge – The purging function is useful to clear the inkjet cartridge nozzles when the machine has been sitting idle. To activate the purge, press the **ENTER** key and feed media.

Clear Batch Counter – Pressing the **ENTER** key will clear the number in the upper right hand corner of the display. Resetting the counter is usually performed at the start of each job. Turning OFF the printer will not reset this counter.

Purge First Piece – Turning the feature ON will cause the printer to send one purge pattern on the first piece. After the purge is completed the next piece will print the first record of your database.

Address Recovery – In event of a jam or misprint; in the printer you can recover up to the last 9 records by using this feature. See "Print Recover After a Jam" for details on the use of this feature.

Print Enhancement –The print enhancement feature is used to help the nozzles on the ink cartridge stay open and decrease the loss of the descender on letters such as "y" or "q" and accent marks that do not appear in every address. Pressing the **ENTER** key will turn this function ON or OFF. The function will remain as changed until the operator changes it again.

NOTE: The Print Enhancement feature will time out after 100 seconds if no media is going through the printer. Once media is being printed it will restart.

Automatic Feed –Turning the feature ON will cause the printer to automatically start the transport and feed systems, if the printer is placed on-line before it starts receiving data.

Enter when head (n) filled – The printer is capable of telling you when an ink cartridge is running low of ink. To use this feature press the **MENU** key momentarily. Then use the "+" or "-" key to highlight "Enter when head (*n*) is filled". Press the **ENTER** key and install a new cartridge. Repeat for each cartridge you install. When the ENTER key is pressed the display will change to "Head (*n*) has a new cartridge". To check the level of ink in the cartridges, Press and hold the TEST key until the "Service Menu" appears. Use the "+" or "-" key to scroll to the "Service Menu: Ink Levels, 100%100%100%". This will show how much ink remains in the cartridge.

NOTE: The "Ink Level" feature is only accurate if the cartridges remain in the original positions where they were first installed. If you swap the cartridges from one pen stall position to another, the levels will not be accurate.

Setup Menu: To access the Setup Menu; press and hold the **MENU** key until the "Setup Menu" appears. Step through the Setup Menu items, using the "+" or "-" key.

Total Count – The total count displayed is the total number of prints that have passed through the printer. It is non-resettable.

BIOS Version – The version of the BIOS is displayed in this menu when the "+" key is pressed once. From time to time it may be necessary for a technician to upgrade the BIOS in the printer. When this is done, the new BIOS version can be checked in this manner.

Bulk Ink – This feature is not used. No provisions are made to install bulk ink cartridges.

+ / - (plus / minus) keys

In the various menu modes these keys are used to step through the options.

ON LINE key

Pressing the **ON LINE** key will cause the printer to change from the on-line state, to the off-line state, or vice-versa. The LED on this key will slowly flash when there is power present and the printer is off-line.
The LED on this key will turn on (steady), when the printer is placed on-line.
Pressing the **ON LINE** key during the printing operation will take the printer off line and stop the printer.

RESET key

The **RESET** key is used to clear the printer memory and return it to its initial state (wait state). This key only functions if the printer is off line.

Purge While Printing

To do the purge in the middle of a job, follow these steps:

Press **ON LINE** key to pause the current job.
Press the **MENU** key, then step to "Press Enter to Purge".
Press **ENTER** key to start the purge. Repeat if necessary.
Press **ON LINE** key and then the **ENTER** key to get back to normal printing.

Note. If paper jam occurs during the purge, after purge, you should use address recovery feature to get back to normal printing. Otherwise you will lose records.

Print Recovery After a Jam

If the media should jam in the printer during the run it is possible to recover up to 9 pieces (records) that might be lost. If a jam occurs, the printer control panel will display “Jam: Reprint Lost Pieces” and “MENU To Continue”..

To recover the lost pieces do the following:

1. Press the **MENU** key and the “Address Recovery” option will appear.
2. Press the **ENTER** key and the following display will appear “Enter: Recover 1 piece”.
3. Use the **+** key to select the number of pieces you wish to recover up to 9.

NOTE: Count the number of pieces you wish to recover and then add 2 for the pieces (records) that are in the buffer.

4. Next, press the **ENTER** key again to register the number of pieces to be recovered.
5. Then press the **ENTER** key again to restart the printer.
6. You may repeat this process a many times as required. When you reach the end of the database if the last piece jams, then enter 1 piece to be recovered.

Installing the Printer Driver

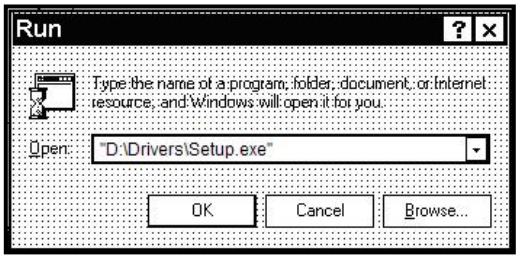
FlexMail3 Users: You may find newer printer driver versions on your FlexMail3 CD. However; Rena Systems suggests installing and using the printer drivers distributed with the printer, or drivers downloaded from www.renausa.com. These are tested and approved drivers by Rena Systems Inc. Other driver versions may not work properly.
These drivers should not be used with FlexMail 2.

Satori Bulk Mailer 5.0 Users: Satori has developed their own printer drivers for use with their software product. Therefore, Satori recommends that you load and use the printer drivers available to you on the Satori Bulk Mailer 5.0 CD. If not, the Bulk Mailer software may not function properly with the printer.

A dedicated printer driver is included on CD, with the printer. It must be installed on your computer before you will be able to print from your software. Follow the steps below to install the driver:

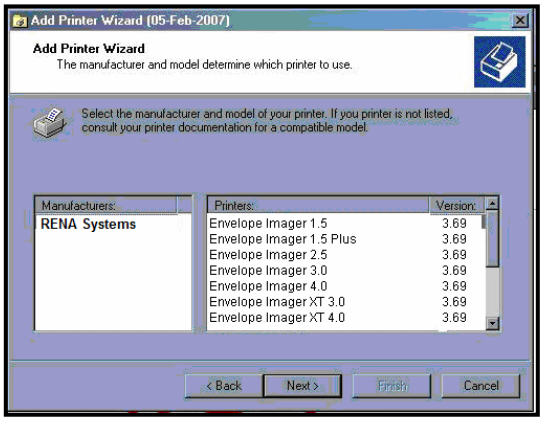
NOTE: A "Launch Menu" should open automatically, when the Driver Installation CD is inserted into your CD-ROM drive. Select "Install Printer Drivers" from the launch menu. If the launch menu does not open; please use the steps below to install the printer driver.

1. If you have, any applications running on your computer close them and restart the computer before beginning the driver installation.
2. Install the CD in the CD drive and click on **START**. Then click on **RUN**, then type the following; D*:\Drivers\Setup.exe* (where D is the CD drive) then click **OK**.
3. The "Add Printer Wizard" window will open. Click **Next>**.
4. Type in your Name and Company and click **Next>**.



5. Select the printer port **LPT1**. Then click **Next>**.
Note: If you are using the USB port, and the printer is connected, you may select the appropriate USB port, instead of the LPT1 port, at this time. You can also change the port assignment at a later time.
6. The "Add Printer Wizard" will appear. Select your printer model from the list, then click **Next>**

IMPORTANT: "Normal" print orientation, to these printers, is "up-side-down"; as viewed from the operator side of the printer. "Invert" orientation is "right-side-up"; as viewed from the operator side of the printer.
To change print orientation, you must load and select the appropriate printer driver:
"Normal" (up-side-down): Load and select the Envelope Imager XT 3.0 or Envelope Imager XT 4.0 driver.
"Invert" (right-side-up): Load and select the Envelope Imager XT 3.0 Invert or Envelope Imager XT 4.0 Invert driver.

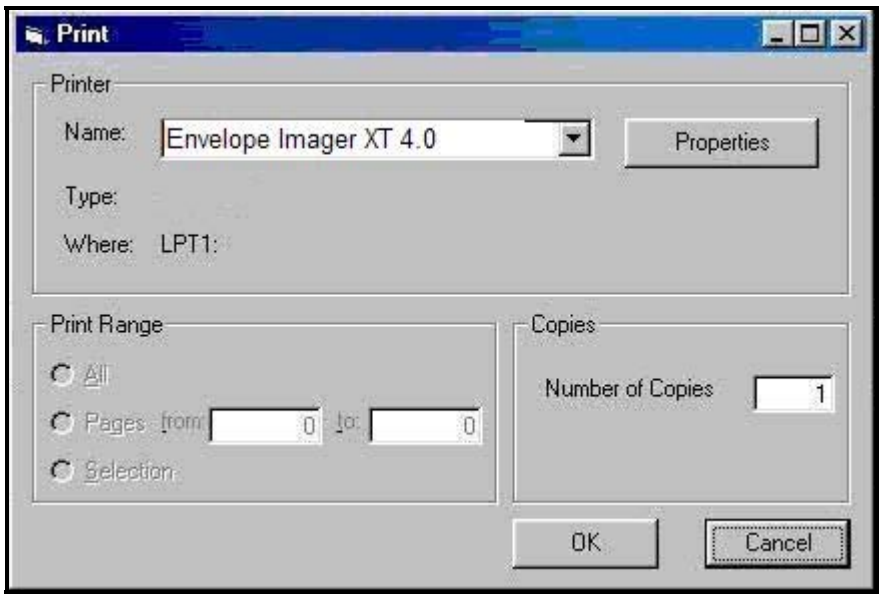


7. The next screen allows you to "Name Your Printer". Unless you have another printer of the same name on your system or network, don't change the name.
Select this printer as your "Default" printer and click **Next>**.
8. Click **Finish** to complete the installation.

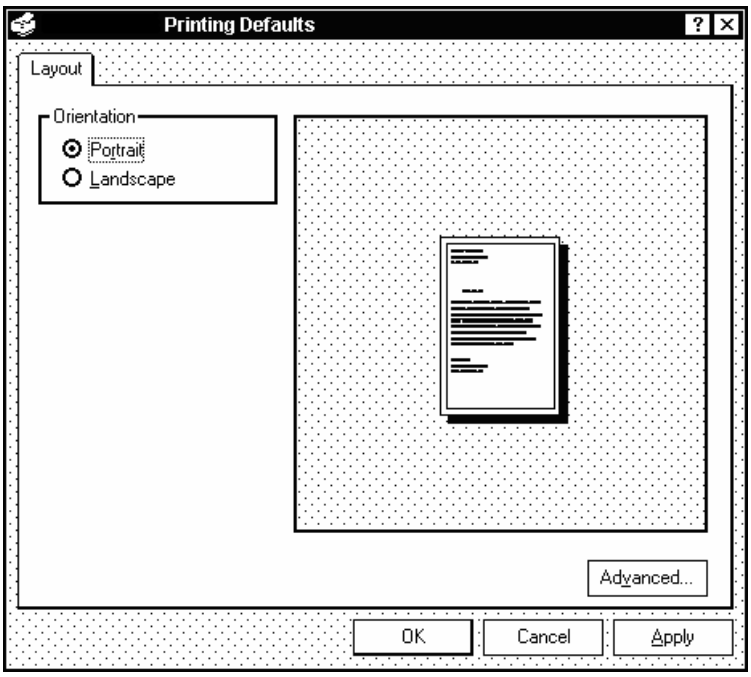
Printer Driver Properties

The printer driver describes to the printer how to print your job. It controls the operation of the printer and allows you to send fixed and variable text and graphics to the printer. The following describes the printer driver properties windows for the Envelope Imager XT 3.0/ XT 4.0 and how to use them to customize the output of your printer.

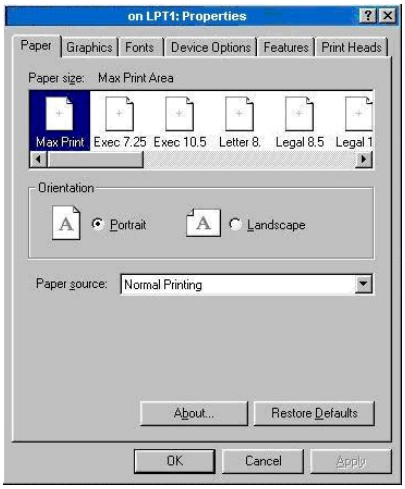
To start printing click on **File**, then **Print**. The Print window will open. If you wish to print the job click on **OK**. If you wish to use the special features built into the printer drivers; then clicking on the Properties button will open the printer properties window.



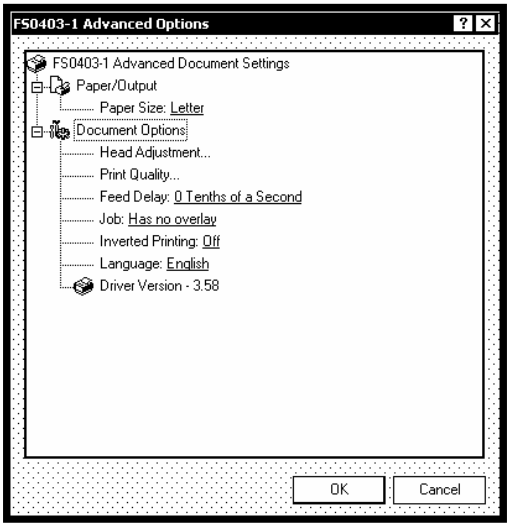
If you are using Windows 2000 or Windows XP the window on the right will open.
Clicking on Advanced will open the Options window.



Windows 98: When the properties window opens, you are presented with several tabs. The **Graphics**, **Fonts**, and **Device Options** are standard Windows 98 printer driver functions and should be left at their defaults**.** The **Features** and **Print Heads** tabs are used to setup, change, and adjust the printer.



Windows 98



Windows NT, 2000, XP

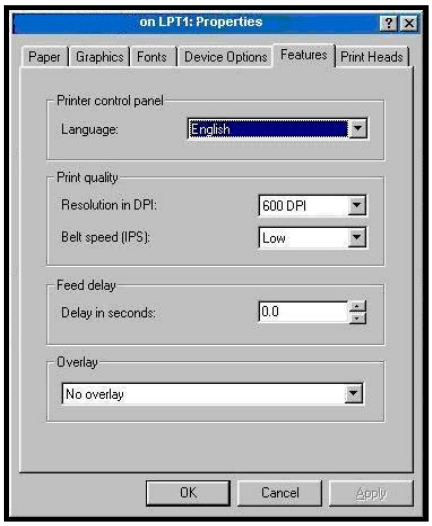
Features Tab/Advanced Options

Depending on the operating system, the Features Tab or Advanced options are used to change the following features.

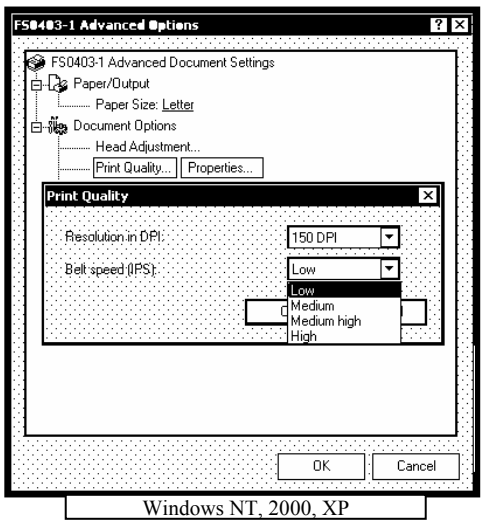
Print Quality This selection contains two elements:

Resolution of the print quality - Changing the resolution to a higher number e.g. from 200 DPI to 600 DPI will increase the quality of the image.

Belt speed. The Belt speed (IPS) automatically changed to the optimum speed for the resolution selected. You can, however change the speeds to a lower speed as follows:



Windows 98

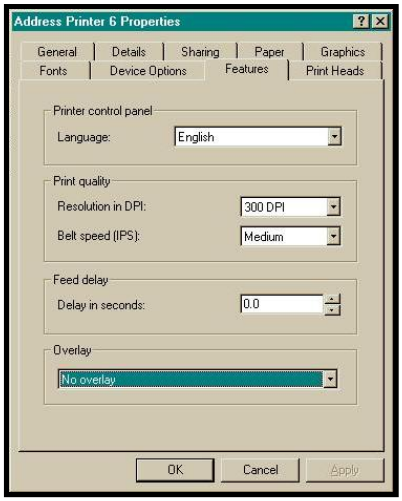


Windows NT, 2000, XP

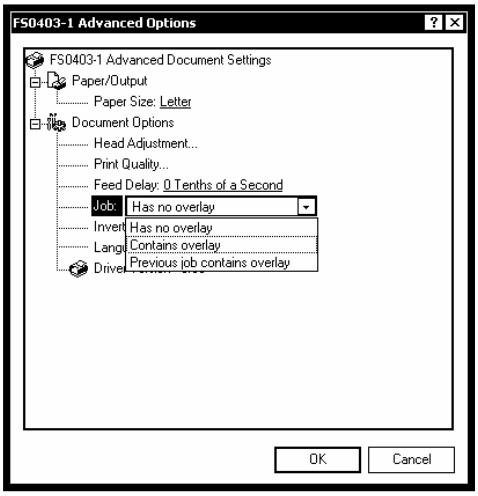
Resolution	Speeds available
150 DPI	Low, Medium, Medium High, and High
200 DPI	Low, Medium, and Medium High
300 DPI	Low, and Medium
600 DPI	Low

Feed Delay - Used to put more space between the pieces as they are being printed. This will also give the first piece printed more time to dry before the next piece is printed. The adjustment range is in 0.1-second increments. This feature works at all speeds.

The **Overlay** feature is used to save time printing when you are combining a database with fixed information or graphics. The default is "No overlay".



Windows 98



Windows NT, 2000, XP

Note: Some software programs, such as FlexMail3 and Satori Bulk Mailer can generate and download the overlay automatically. In these cases, you do not need to perform the following routine.

To use the Overlay feature with software (such as Microsoft Word) that does not automatically generate and download the overlay to the printer; you must follow this routine.

1. First create a layout in your software application; placing all of the fixed information and graphics on this layout, where you would like it printed on your media.
2. Open the layout and go to **Print** in the **File** menu.
3. Click on **Features** and then click on **Overlay**.
4. Select "**Contains overlay**" from the box, then click on **Apply** and **OK**.
5. Next click **OK** on the "Print" window. The overlay will download to the printer.
6. Now open the job that contains the variable data.
7. Using **File** then **Print,** from the drop down menu, open the "**Print**" window for the application.
8. Click on **Properties** then on the **Features** tab.
9. Then click on the drop down menu under **Overlay** and click on **"Previous job contains overlay"**.
10. Click **Apply** and then **OK**.
11. When the Print window reappears, click **OK** to send the job to the printer.

Overlay Tips:

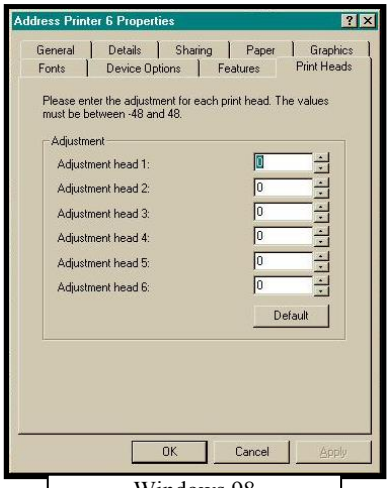
- To print the next job with a different overlay; repeat the process outlined above.
- If you wish to print additional jobs using the same overlay, simply open the next job and send it to the printer.
- If the next job does not contain an overlay, then click on **Properties** in the "**Print**" window, select **Overlay**, then "**No overlay"**. Click **Apply**, then **OK**.
- Turning the printer OFF, then ON will clear the overlay from printer memory.

Print Heads Tab (Head Adjustment)

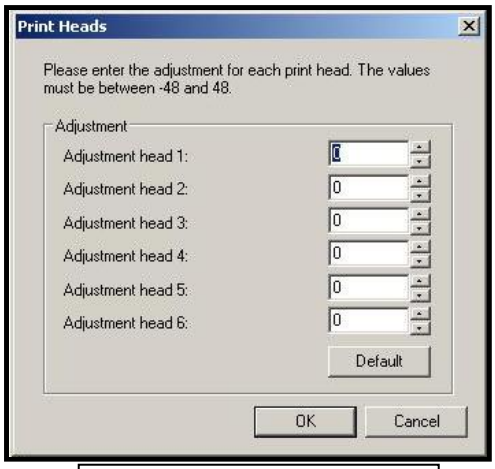
The purpose of the Print Heads tab is to permit slight (0.001-inch) horizontal adjustment to the position of the print heads to each other. The adjustment is used to precisely align the three printheads (cartridges) when printing graphics or type that extends beyond the height of one printhead. Each head can be moved +/- 0.048-inch in 0.001-inch increments.

- To adjust the printhead alignment toward the leading edge; decrease (▼) the value.
- To adjust the printhead alignment toward the trailing edge; increase (▲) the value.

When the printer is turned off the changes that you make in this manner go back to the original settings.



Windows 98

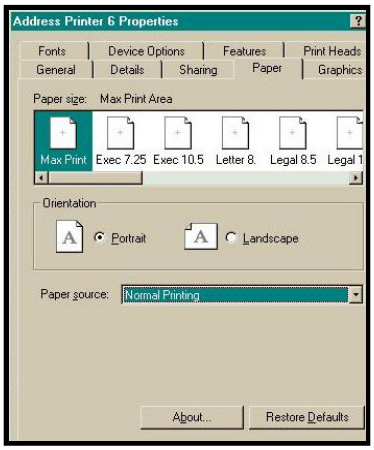


Windows NT, 2000, XP

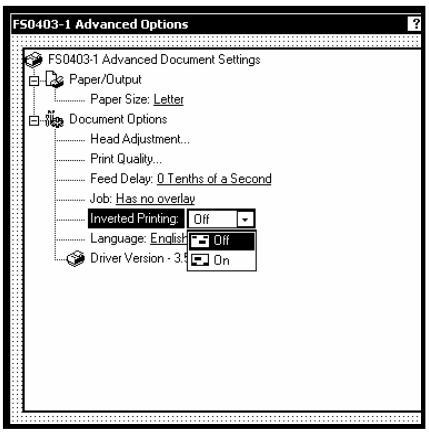
Paper Tab (Invert Printing)

Do NOT try to change the print orientation using the "Invert Printing" feature, shown below.
Instead; to change print orientation, you must load and select the appropriate printer driver:
"Normal" (up-side-down): Load and select the Envelope Imager XT 3.0 or Envelope Imager XT 4.0 driver.
"Invert" (right-side-up): Load and select the Envelope Imager XT 3.0 Invert or Envelope Imager XT 4.0 Invert driver.

Please be sure to leave this "Invert Printing" selection at its default ("Normal" or "Off") choice.



Windows 98



Windows NT, 2000, XP

All other Paper Tab features should be left in their Default settings (Paper size is always "Max Print Area" and Orentation is always set to "Portrait"). Do not change them.

Software Setup Examples

The printer can be used with many different software programs. The following information will provide you with basic setup details, for some of the most common programs used with our printers.

Printing from FlexMail3

FlexMail3 is a powerful "Envelope Design Program" that has been developed to work seamlessly with your Rena Systems printer. The following is a brief description of how to setup and print from FlexMail3.

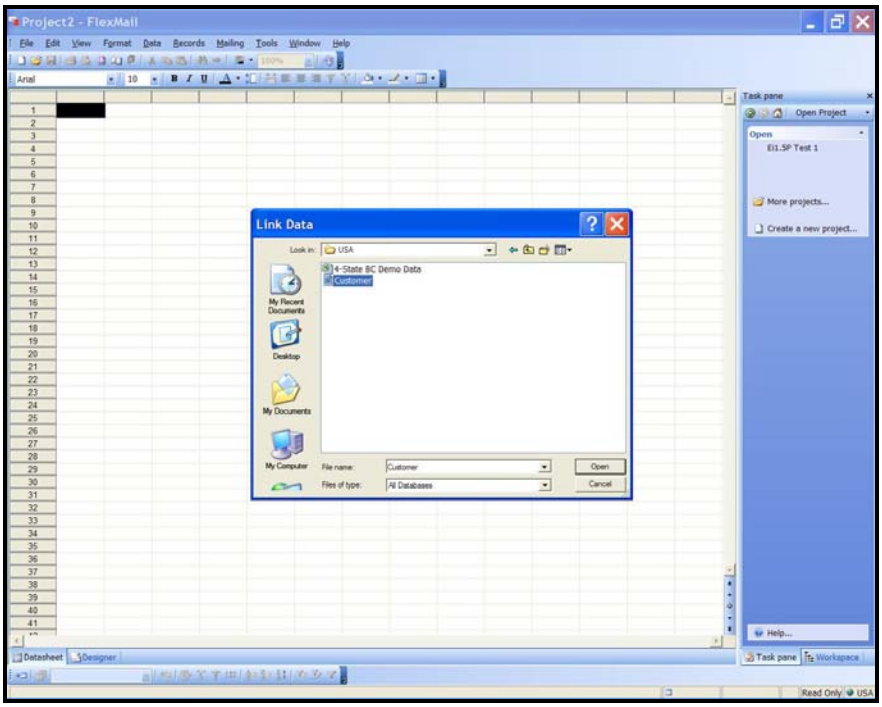
> **Printer Drivers:** You may find newer driver versions on your FlexMail3 CD. However; Rena Systems suggests using the printer drivers distributed with the printer, or drivers downloaded from www.renausa.com. These are tested and approved drivers by Rena Systems Inc. Other driver versions may not work properly. These drivers should not be used with FlexMail 2.

Creating and Exporting Your Data File

Since FlexMail3 does not have a CASS and PAVE option; the data file is normally created with a program that has CASS and PAVE features.
After your list is cleaned, using your CASS and PAVE software, it must be exported in pre-sort order.
FlexMail3 can link to files with many different data formats; however, the recommended format is a CSV (comma delimited) format.

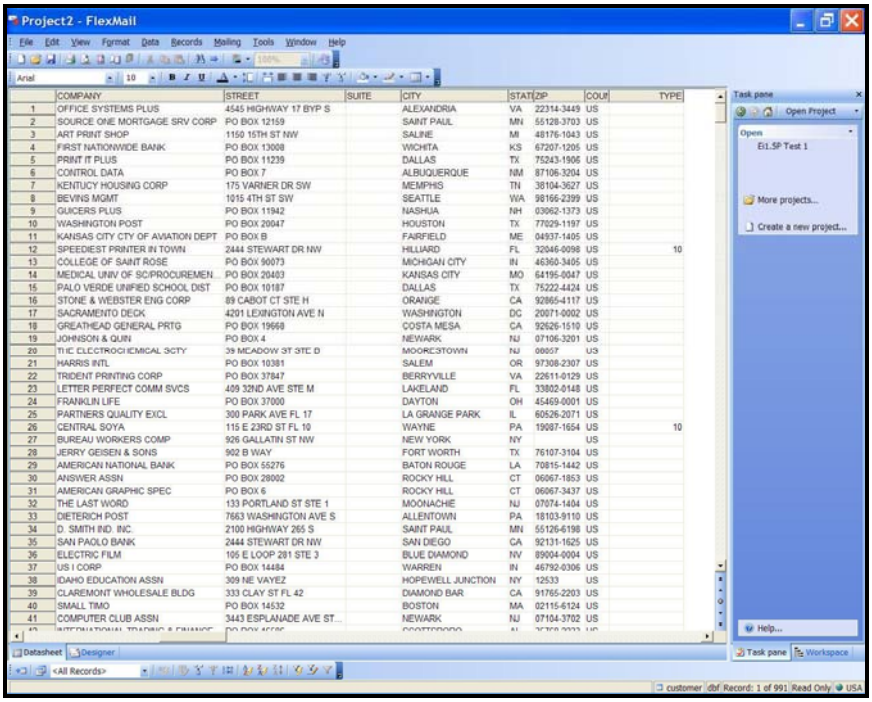
Linking Your Data File

1. Open FlexMail3 and make sure you are in the Datasheet view (Select the "Datasheet" tab, located at bottom of screen.)
2. Click on File, then New
3. Click on Data, then Link Data
4. Browse to locate your data file on the system.



5. Once you locate your data file, click on OPEN. The “Link Data Wizard” will appear and it will walk you through the steps of linking your data file to FlexMail3.
   Tip: Selecting zero for “rows to scan” will cause FlexMail3 to scan all rows for data. This may take some time, but doing so will avoid the loss of fields that may only sporadically contain data.
   When selecting “Field Types”; it is suggested that you set your numeric fields (zip code, dpc) as “text”.

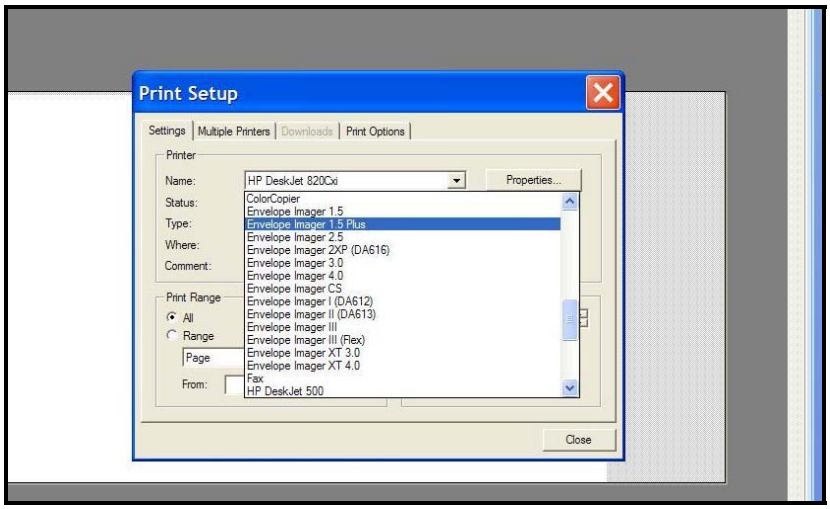
6. Once you are finished with the Link Data Wizard, you will be presented with your data file, shown in the Datasheet view. Take a moment to verify that all data is present and properly defined.



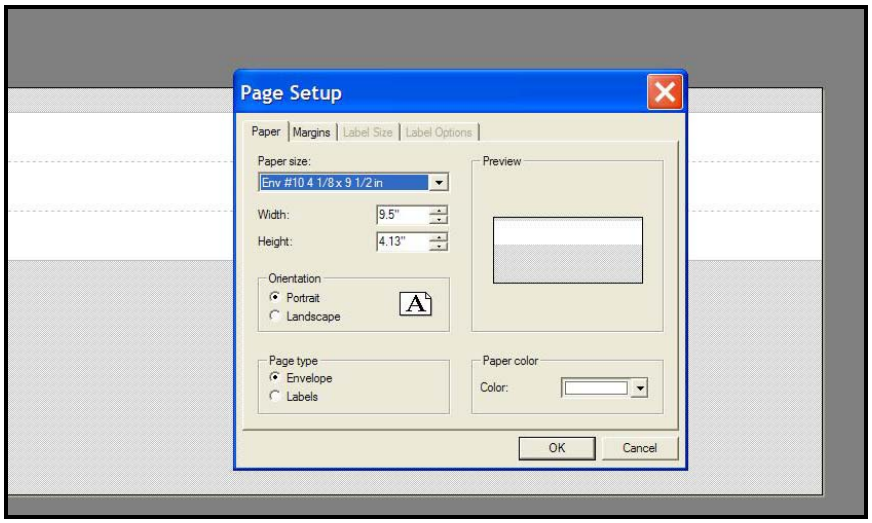
Designing Your Layout

1. Click on the “Designer” view tab (located at the bottom of the screen).

2. Click on File then Print Setup. Select your Rena printer model from the pull down list. Then click on Close.



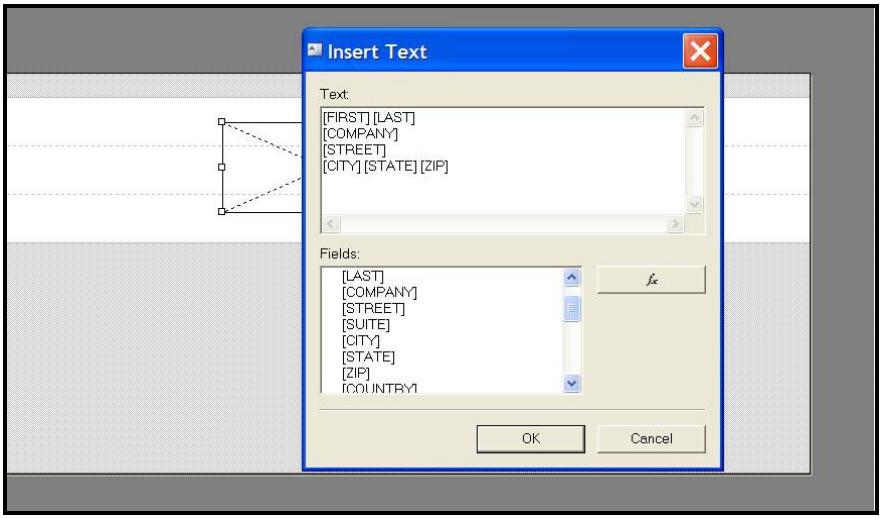
3. Click on File then Page Setup. Select or input your page size then click on OK.
   IMPORTANT! Make sure Orientation is set to “Portrait” and Page Type is set to “Envelope”.



4. Click on “Insert” then “Text”.

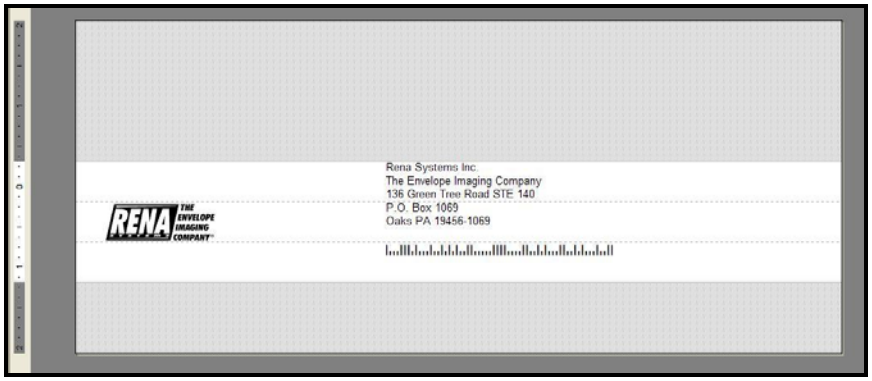
5. Using your mouse, draw a text box on the screen (click and hold to draw, release to end). You will be presented with the “Edit Text” window.
   Tip: Don’t worry about the exact placement or size of the text box at this time. You can drag it to a new location or adjust the size when you finish this process.

6. Select/insert the fields that you want to be printed, in this text box, and then click OK. The text box containing your selected fields will be displayed on the designer screen.



7. Using our mouse, drag the text box to the desired location on the screen.
   Tip: Position the text box so it is on a white band (representing the print cartridges). In addition, position the text box so none of the printed lines are split between adjacent cartridges in the print unit. The separation between adjacent cartridges is represented by a dashed line.

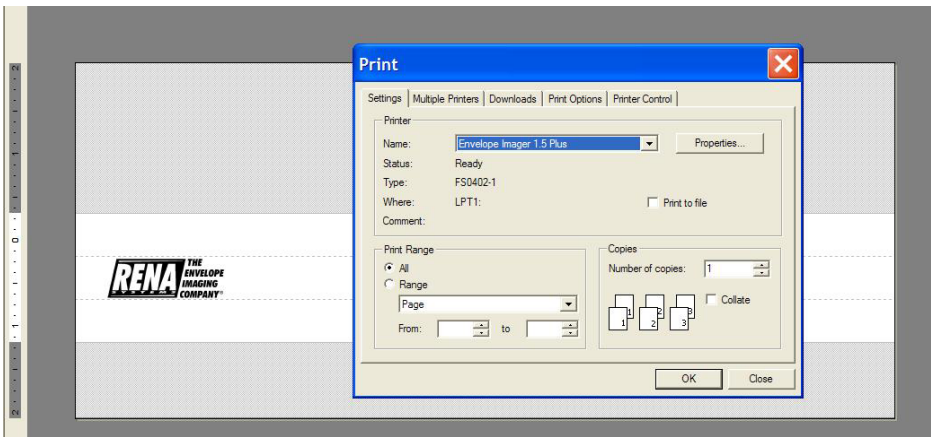
8. Add any barcodes or graphics desired using the “Insert” “Barcode” or “Insert” “Picture” features.



9. Save the Project. Click on File and then Save. When prompted, type a name for your project, then click SAVE.

Printing

1. Click on File then Print. The Print Dialog box will open.
2. Verify that the correct printer model (Name) is selected.
3. Click on the “Properties” button, if you want to change printer properties such as quality (resolution), orientation, etc…
   Note: While in the “Layout” dialog box, check to be sure the “Orientation” is set to “Portrait”.
4. Select All or a Range of records to print.



5. Click on OK to print your selection of records.

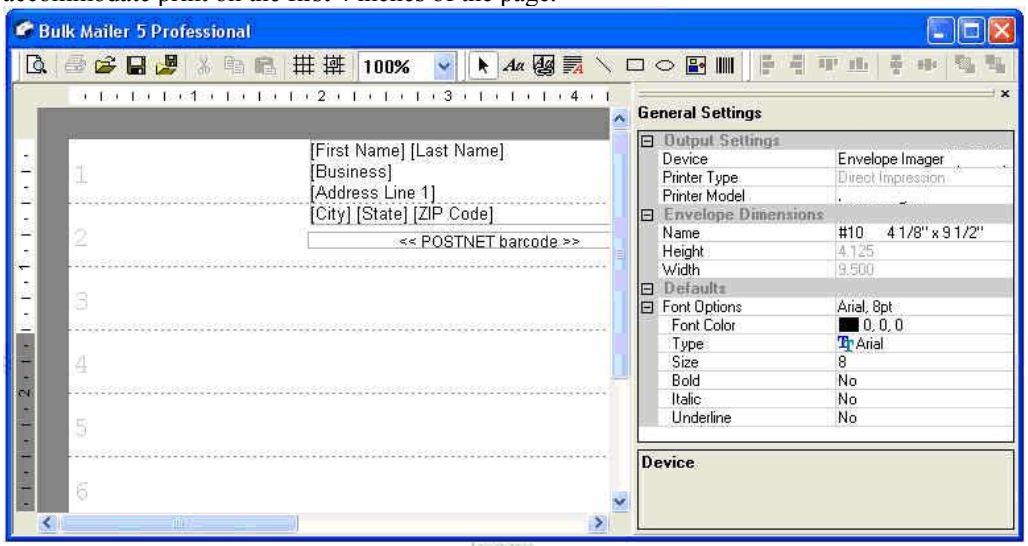
Printing from Satori Bulk Mailer® 5.0

Printer Drivers: Satori has developed their own printer drivers for use with their software product. Therefore, Satori recommends that you load and use the printer drivers available to you on the Satori Bulk Mailer 5.0 CD. If not, the Bulk Mailer software may not function properly with the printer.

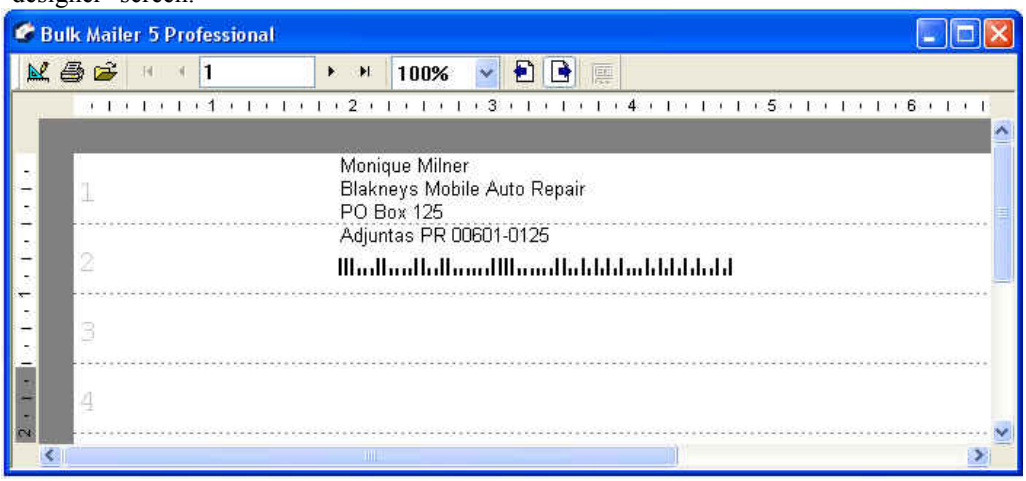
The following is a brief description of how to setup and print from Bulk Mailer 5.0.

1. **Open Bulk Mailer 5** and select (open) the mailing list of your choice.
2. **Use the Bulk Mailer 5 "Wizards" to setup your job.**
   This newer version of Bulk Mailer is driven by "Wizards", which will guide you through the envelope design and layout process.

   Your envelope design (layout) should look similar to the one shown below.
   This example was designed for the Envelope Imager 1.5. Notice how the address data is positioned at the top of the page, within the first 1.5 inches of the top of the page. When using the Envelope Imager XT 3.0 it can accommodate and print the first 3 inches of the page. When using the Envelope Imager XT 4.0, it can accommodate print on the first 4 inches of the page.



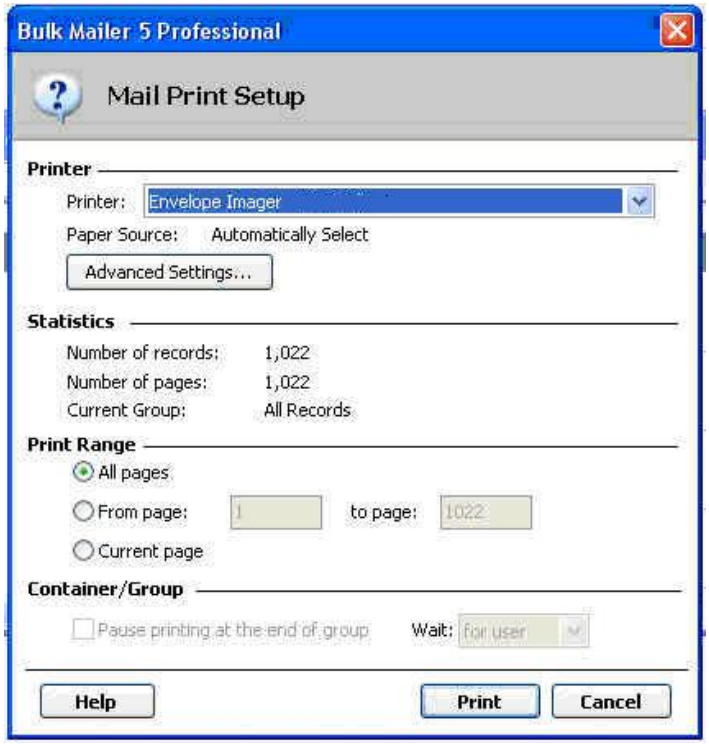
3. **Click on the "Go to Preview Mode" icon** , located at the upper left-hand corner of the Bulk Mailer 5 "designer" screen.



Tip: Click on the "Go to Designer Mode" icon , to return to the "designer" screen.

4. **Click on the printer icon , to open the "Mail Print Setup" dialog box.**

   - Make sure the corresponding Rena Systems printer driver is selected as your "Printer:".
   - Use the "Advance Settings..." button to select the desired print quality and or orientation.
   - Use the features under "Print Range" to select the range of addresses you want to send to the printer.



5. **Print.**
   When ready to print, make sure the printer is on-line, then click on the "Print" button.

Please contact Satori Software (800-357-3020) or visit the Tech Notes area of their web site for additional information. http://www.satorisoftware.com/US/support/TechNotes.asp

Printing from DeskTop® Mailer

Preparation

Install Barcode Font

In order to be able to print Postal Barcodes with the Printer, when using DeskTop Mailer®, you must first install the **BarCode USPS** font that is supplied on the driver disk that accompanied the Printer.

The font is installed as follows:

1. Click on **START**, then **Settings**, and then open the **Control Panel**.
2. Double click on the **FONTS** folder. When the fonts folder window opens, click on **File** and then **Install New Font...**
3. The "Add Fonts" window will open. Find the "BCUSPS.ttf" file on the CD and select it.
4. Click OK and the font will be installed in the Fonts folder.
5. Close the FONTS window and the CONTROL PANEL window.

Set Print Method

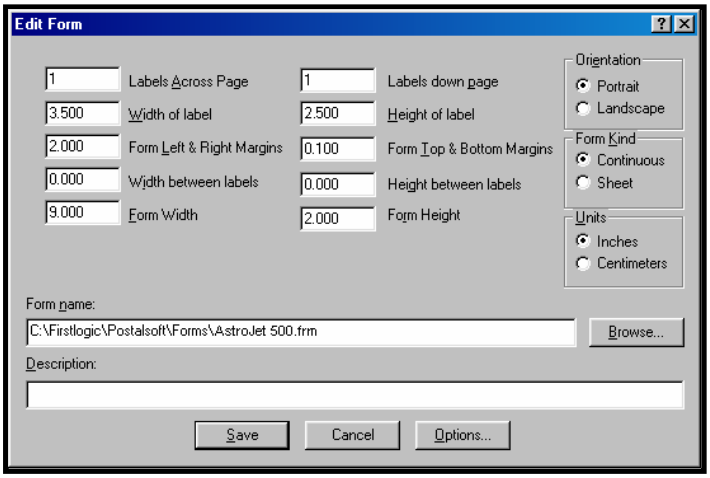
It is necessary to disable the label toolbox before printing with the Printer using DeskTop Mailer®. Click on **Tools.** When the "Options" window opens click on **Printing Method....**. Under "Printing Engine" activate the "Disable Label Toolbox" option. Then click **OK**. Next click **Close**.

Using Barcodes with DeskTop Mailer®

Edit Form

It is necessary to set up the layout form to match the printer that you are using. The steps below will help you to accomplish this:

1. Click on **Print**, then in this example **Non-presorted Labels** and then **Page/Form Setup...**
2. When the "*Select Form"* window opens click on **Edit**.
3. The "Edit Form" window will open.
4. Fill in the information as follows:
   a. Labels Across Page = 1
   b. Width of label = any number up to the maximum print length of the printer you are using.
   c. Form Left & Right Margins= depends on the size of the form and the width of the printing area required.
   d. Width between labels = 0.
   e. Form Width = the length of the piece you are printing on.
   f. Labels down page = 1



g. Height of label = is equal to the number of printheads the model of Printer you are using times 1/2-inch. In our example we are using a 5-head printer, therefore the height is 2-1/2 inches.

h. Form Top & Bottom Margins = should be set at 0.100 to insure that none of the data is lost.

i. Height between labels = 0.000

j. Form Height = the height of the printhead area or slightly larger.

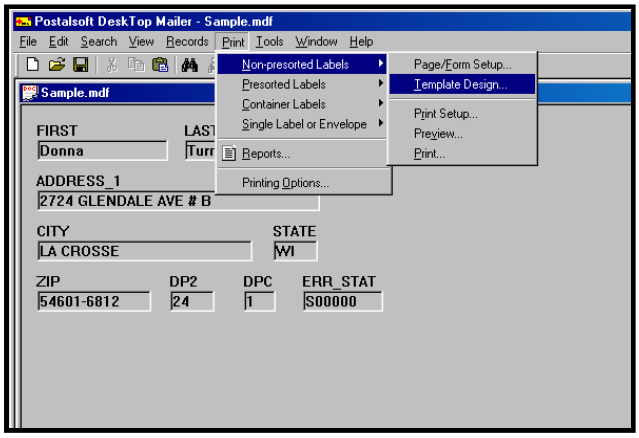
5. Name the form in the **Form name** box and click OK.

Create Layout

Once the Barcode font supplied with the Printer Driver Disk is installed on your computer and the form is setup, the layout that you are using in DeskTop Mailer® must be created.

1. Open the DeskTop Mailer® application and then open the Data file.

2. Click on **Print** and open the **Template Design**. (In the example we are using Non-presorted Labels. This same step holds true for Presorted Labels)



3. Click on **Template Design** and the "Choose Template for Printing" window will open. Select the template you wish to use from the list, then click on **Edit..** and the "Edit Template" window will open. Or select **New...** to create a new template.

4. In our sample we are creating a new template and placing the Barcode below the address lines. When creating a new template first highlight *"Define Font"* command and click on **Insert command**. The "Font Selection" window opens. Select the **Font** style, the **Size**, and assign a **Font Number**. Then click **OK**.

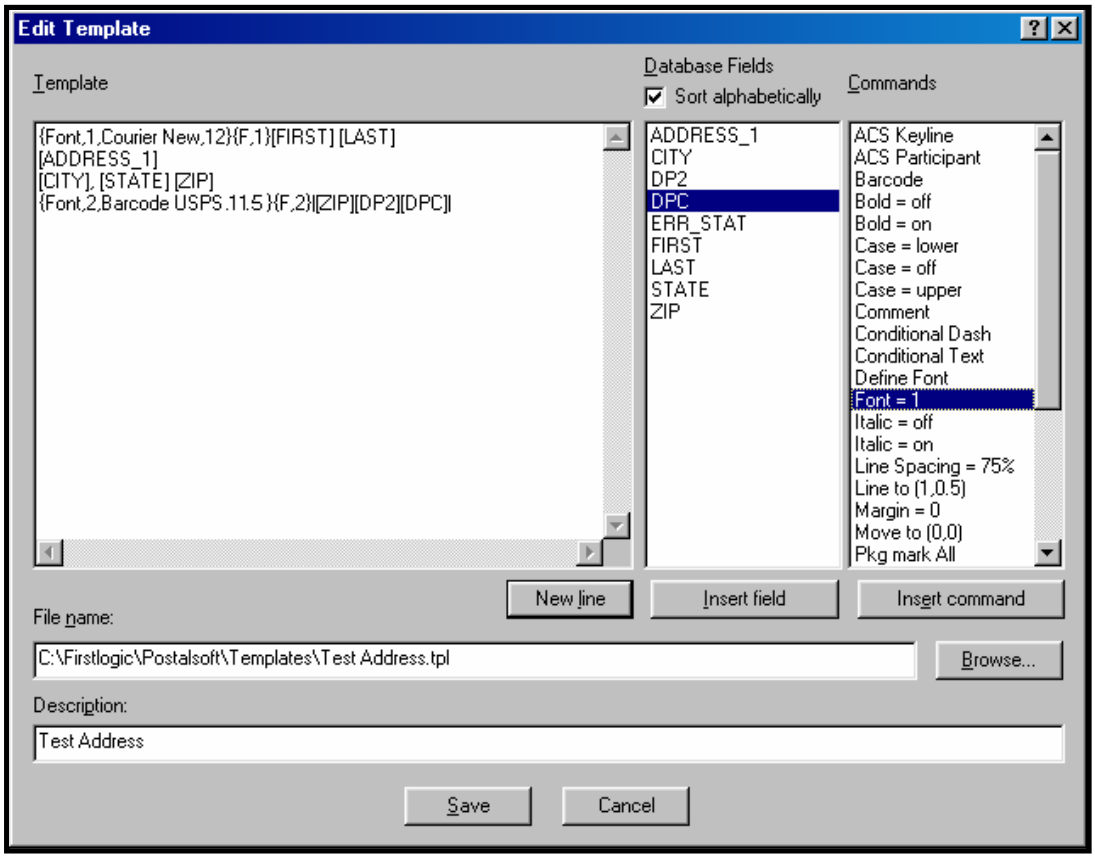
5. Highlight the "Font = 1" command and click on **Insert command**. Then highlight *FIRST* in the **Database Fields** list and click on **Insert field**. Repeat this for the next field, and press **ENTER** to go to the next line. Once the address fields are entered on the **Template** the next step is to add the Barcode.

6. The barcode will become Font 2. Begin by highlighting the "*Define Font"* command and the click on the **Insert command**. The "Font Selection" window opens. Select the BarcodeUSPS font, **Size 11 - 12**, (choose the correct size for your application, you may use fractional numbers such as 11.5) and assign **Font Number 2** to it. Then click **OK**.

7. Highlight the "Font = 1" command and click on **Insert command**. Then change the 1 in {F,1} to 2.

8. Click **Save**. Insert a "|" line (bar) next and then build the barcode data. In our example it is ZIP, DP2, and DPC. Finish this up with another "|".

9. Now save your template by typing in a unique name in the **File name** box, then Click **Save.**



Printing

To make the Printer the default printer for this application click on **Print**, then select **Printing Options..**. When the "Printing Options" window opens select the **Printers** tab and highlight Labels: Non-Presorted Labels or Labels: Presorted Labels, then click on the **Change Printer** button. Select the Printer from your printer menu. And click **OK**. You are now ready to print the job.

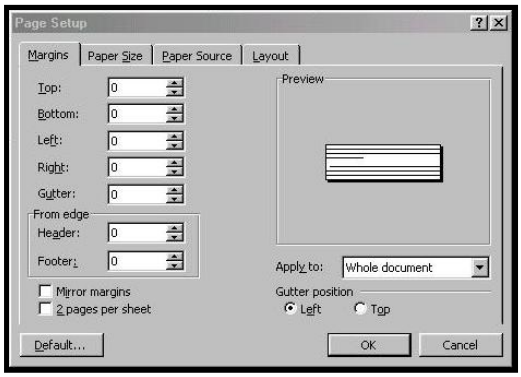
1. If you have not already done this, select **Print**, **Non-presorted Labels**, **and Template Design** and select the template you created. Click **Select**
2. Then select **Print**, **Non-Presorted Labels**, **and Print** and click **OK**. If the printer is not selected, select it and click **OK** to print the job.

Printing from Microsoft Word

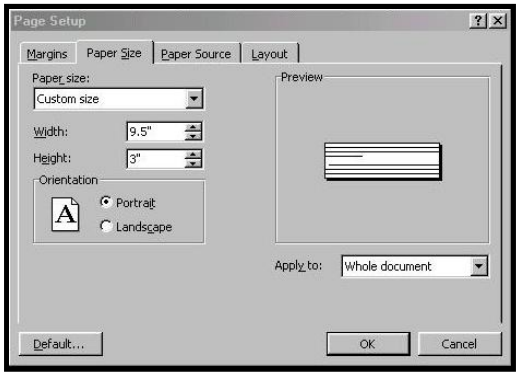
If you are not using a specific program designed for mailing applications it is possible to print your mail pieces using Microsoft Word. This section will cover how to layout a piece and to print from Microsoft Word.

To begin open a new page and turn on the tool bar for Mail Merge. Under Print, select the Address Printer 6 as the default printer. Go to **Page Setup** in the **File** menu. Set all of the margins to "0".

NOTE: The printer must be selected before you do the setup so that the setting will be registered.

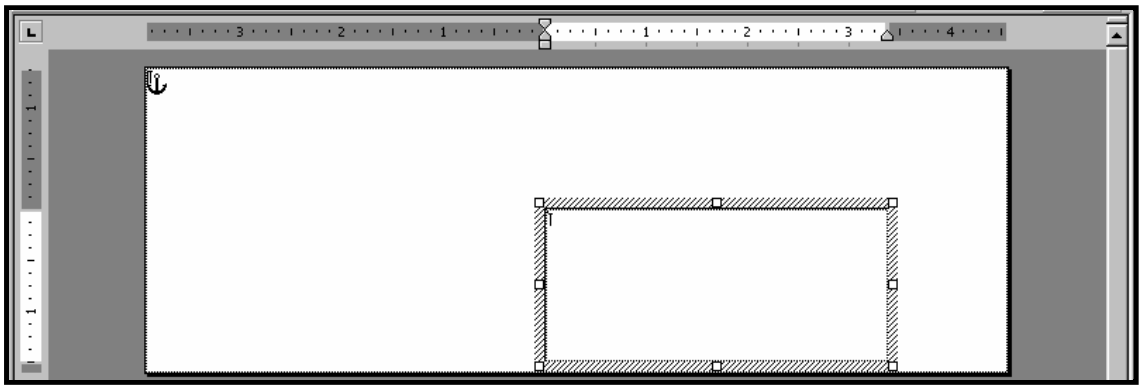


Next, select the **Page Size** tab and Custom Page. The size of the layout should be 3-inches high by the length of the piece you are intending to print. In our example, we have selected the width of a # 10 envelope, 9.5-inches. The orientation of the piece is always **Portrait**. The effective printing area of the Envelope Imager XT 3.0/XT 4.0 is 3-inches by 15-inches. When you have completed this step click **OK**.



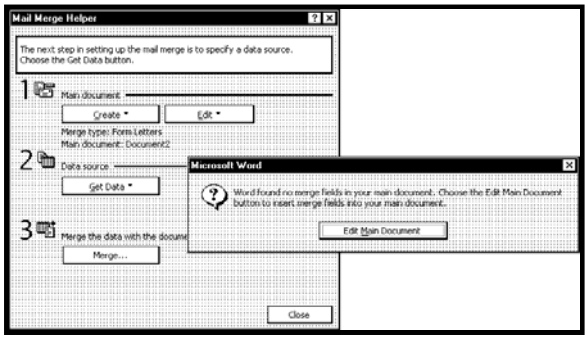
The next step is to create a text box so that you can position the address the proper distance from the lead edge of the piece. Once the page layout is set, you might want to save it as a template for use later.

When you have completed the steps above the layout should look like the one below.



NOTE: When setting up a layout for the Envelope Imager XT 3.0/XT 4.0, be aware that the printheads are aligned in two banks and these banks can be aligned so that you can print in a 3" or 4" wide spread over the width of the media. Head 1 is on one rail and opposite it is heads 5 and 6. There is a 1-3/4" gap between these heads. On the second rail is Heads 2,3 and 4 attached together. If you are using a XT 4.0 a second two heads 7 and 8 are arranged opposite to these heads. There is a 1-3/4" gap between heads 2,3 and 4 and heads 7 and 8. Head 1 can be combined

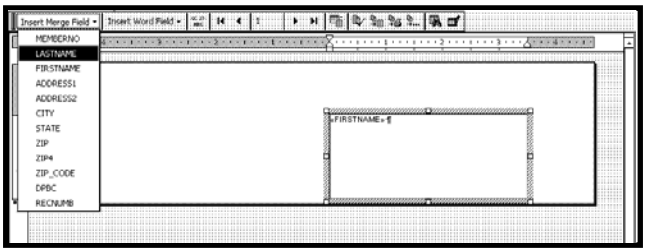
with heads 2,3 and 4 to print 2” of information. In the XT 4.0, heads 5 and 6 can be combined with heads 7 and 8 to print another 2” of information.



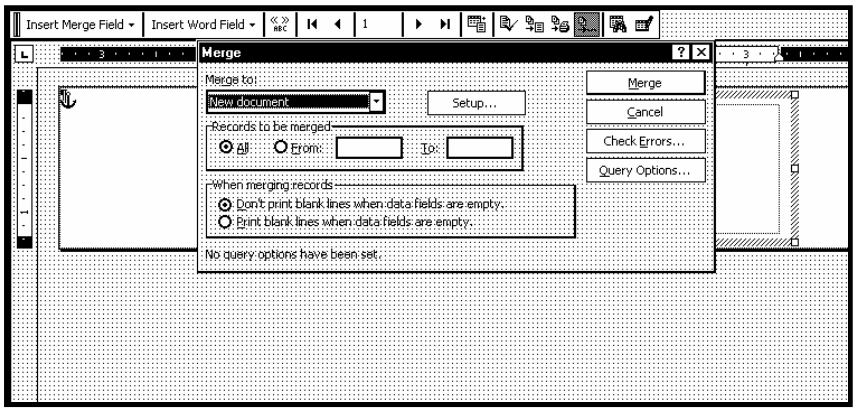
Click on **Tools** and then **Mail Merge**. The “Mail Merge Helper “ window will open. Click On **Create**, then **Envelopes**. The “Microsoft Word” window will open. Click on the **Active Window** button, and then click on the **Get Data** button. Next, click on **Open data** source. Locate the data file you intend to use. In our example, we are using a Microsoft Excel file. Select the file and the “Microsoft Excel” window opens select entire spreadsheet and click **OK**.

Next, click on **Edit Main Document** and then click on **Close**.

Use the Mail Merge Tool Bar, click on Insert Merge Field, and begin to build the layout by inserting the address fields.



When you have completed setting up the layout, click on the **Mail Merge** icon on the tool bar and the “Merge” window will open.



In the **Merge to** menu, there are several choices for where how the data is exported. The two that concerns us is “New Document” and “Printer”. If you choose “New Document”, the merge will be created in your word application with a separate record for each address. If you choose “Printer”, the merge will send directly to the printer and each record will be printed.

The next selection is “Records to be merged”. You can select **All** or **From**.

The last selection is “When merging records”. The default is “Don’t print blank lines when data fields are empty.” This should be left checked.

Clicking on **Merge** will start the process of merging the documents.

If you chose to send the merge directly to the printer and the printer is connected to the computer and turned ON, the printer will start. Pressing the **ENTER** key will start the printing process.

If you have a graphic or fixed text to be printed with the data, refer to the section on Overlays.

Section 4 – Maintenance

This section covers how to care for the ink cartridges, clear paper jams, replace the sheet separators, and perform routing maintenance on the printer.

Inkjet Cartridge Maintenance

The inkjet cartridges must be replaced when out of ink, when print quality is poor, or when purging and cleaning have not helped the image quality.

The Approximate life of the HP 51645A Inkjet cartridges based on three lines of 20 characters at 10-point size per address is:

High Quality	600 dpi	50,000 addresses
Standard Quality	300 dpi	100,000 addresses
Letter Quality	200 dpi	150,000 addresses
Draft Quality	150 dpi	200,000 addresses

NOTE: These figures can vary depending on the font selected.

Replacing the Inkjet Cartridge:

- Remove the used cartridge from the pen stall by raising the latch lever to release the cartridge, then pull the cartridge up and out of the pen stall.
- Remove the new inkjet cartridge from its packaging, taking care not to touch the copper contacts, or the nozzle plate. Remove the protective tape from the printhead
- The cartridges are held in place by a lever mounted on the pen stall. Release the lever by raising it vertical.
- With the cartridge's nozzle plate (printhead) pointing down, slide the cartridge into the pen stall and push down and toward the contacts in the pen stall.
- Make sure the cartridge is seated in the pen stall then close the lever to secure the cartridge in the pen stall. Do not force the lever into place.
- Reset the Ink Level Monitor for this cartridge position. See "Ink Level Monitor Reset"
- Repeat the above for the remaining cartridges.

CAUTION

NEVER SHAKE, DROP, OR HIT THE CARTRIDGE AGAINST THE PALM OF YOUR HAND OR ANY OTHER HARD SURFACE. SHAKING THE PRINT CARTRIDGE DOES NOT "MIX" THE INK AND HITTING THE CARTRIDGE AGAINST A HARD SURFACE DOES NOT CLEAR THE NOZZLES BOTH OF THESE ACTIONS ACTUALLY HURT THE PRINT QUALITY BECAUSE THEY ALLOW BUBBLES TO FORM NEAR THE INK FIRING CHAMBERS. THESE BUBBLES PREVENT THE NOZZLES FROM FIRING CAUSING WHITE STREAKS IN THE PRINT IMAGE.

Inkjet Cartridge Storage

Short-term Cartridge Storage (Less than 8 hours or less than 2 hours in hot/dry environments.)

- The cartridge can be left in the Printer, for short periods of time.
- The next time that the Printer is used, the cartridge nozzles may have to be cleaned and purged

Long-term Cartridge Storage (More than 8 hours or more than 2 hours in hot/dry environments.)

- Clean the cartridge and place the cartridges in a re-sealable container (i.e. Tupperware) with a damp sponge or towel to maintain humidity and prevent the cartridge from drying out.
  Note: Do not allow the nozzle plate to make contact with the sponge/towel, or the ink will be wicked from the cartridge.
- When the cartridges are ready to be used again, the cartridge body and contact area will need to be dried and the nozzles will need to be cleaned and purged.

CAUTION! Be sure the contact area of the cartridge is dry, before installing it into the printer or damage to printer's electronics will result.

Note: Decap Time (time it takes for unsealed cartridge nozzles to become clogged) will vary greatly. Ink type, environment, prior cartridge maintenance, and cartridge condition can affect decap time.

Cartridge Disposal

The cartridge may be disposed of in a normal manner.
If there should be an ink spill, use soap and water to clean up any problem areas. Abrasive soap works well to get the ink off of hands.

The ink in the cartridge may be harmful if swallowed. Keep new and used cartridges out of reach of children. Discard empty cartridges immediately.

Cleaning the Inkjet Cartridge (Printhead)

To maintain good print quality it is important that the printheads are kept clean. During the printing process ink spray, paper fibers, and dust can cause a build-up on the cartridge nozzle plate (printhead). This build-up will eventually degrade the print quality. If you begin to notice problems with the quality of the print; or to prevent a build-up from occurring; the nozzle plate of the cartridge should be cleaned with a damp, lint-free, non-abrasive, cloth, such as Rena Cartridge Wipes (part # 2023).

Cloth should be:

- ✔ Soft
- ✔ Fiberless
- ✔ Moist with Water (Distilled is best)

Cloth should not be:

- ✕ Abrasive
- ✕ Made of small fibers
- ✕ Dry or containing chemical additives

- Place a drop of distilled water near the edge of the *Cartridge Wipe* cloth.
- Start by placing the cartridge onto the damp area of the cloth.
- Using a small amount of downward force, slowly pull the cartridge from the damp area, across to the dry area of the *Cartridge Wipe*, while slowly decreasing the amount of downward force.
- Repeat this procedure a few times. Make sure you only clean the cartridge in one direction. Either from the front of the head to the back of the head, or from back to front.
  Note: Do not shake the cartridge; as this will cause air bubbles to form, which will negatively affect the performance of the cartridge.
- It is recommended that you perform a purge, before starting to print again.

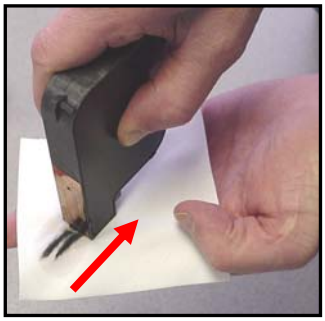


Figure 26

Purging the Nozzles

If the inkjet cartridge sits inactive for a period of time, ink may dry in the nozzles. Printing may not remove these "ink plugs" from the nozzles. White streaks will then show up in the printed text or graphic. In order to obtain better print quality, these ink plugs need to be forced out or purged. A Purge routine is built into the printer. It can be accessed from the LCD panel on the Printer from the **MENU** key. If this does not solve the problem then proceed as follows:

1. Wipe the printhead with a damp cloth as described in Section 4 "Cleaning the Inkjet Cartridge".
2. Perform the Purge routine from the Printer by pressing the **MENU** key momentarily and then the **+** key. Load media and press the **ENTER** key to purge. Repeat if necessary.
3. If the problem persists, replace the ink cartridge.

   NOTE: For more information, refer to "Troubleshooting HP Ink Cartridges" in Section 5.

Jams in the Printer

If a jam occurs; **STOP** the Printer. Up to 10 missed addresses can be recovered at the printer control panel. (See Section 3 – Operating the Printer "Print Recovery After a Jam".

Some possible reasons for jamming are:

1. Feeding more than one piece of media (overlapping, double-feeding). Reset separation.
2. Damaged media, such a dog-eared (turn down corners).
3. Media that is not stiff enough may not be usable. Media that meets Postal stiffness requirements for automated feeding is acceptable for use in the printer.
4. Envelopes that are caught under the flap of another envelope (nested) or stuck to one another may cause jamming.

Removing Jammed Media

1. It may be necessary to move one or more of the printheads to gain access to the jammed media. Take care in removing jammed media to prevent damage to the print heads. All pieces of the jammed media must be removed from the feed path.
2. Follow the instructions in Section 3 – Operating the Printer "Print Recovery After a Jam".

Cleaning the Printer

WARNING

THE PRINTER IS A PRECISION MACHINE THAT SHOULD BE CLEANED REGULARLY TO INSURE MANY YEARS OF SERVICE. BEFORE PERFORMING ANY MAINTENANCE DISCONNECT THE MACHINE FROM ITS POWER SOURCE!

The Printer must be cleaned regularly of accumulated paper dust and ink. Depending on the types of media that are run, paper dust may accumulate within the printer and on the transport. To properly clean the printer, unplug it from the power receptacle and remove the covers.

The internal areas are best cleaned with a vacuum that has a soft brush attachment to help loosen the dust particles. Take care not to damage the PC Boards or electrical wiring.

The exterior of the machine may be cleaned with any standard household cleaner which is non-abrasive and does not contain plastic harming solvents.

CAUTION

NEVER SPRAY OR POUR CLEANERS DIRECTLY ON OR INTO THE PRINTER. LIQUIDS CAN HARM ELECTRONIC PARTS. ALWAYS DAMPEN A RAG WITH THE CLEANER AND APPLY IT TO THE PARTS TO BE CLEANED.

Upper Pressure Rollers & Exit Rollers

The rubber, Upper Pressure Rollers and Exit Rollers can become glazed with paper lint and ink from the media. They should be regularly cleaned with a mild household cleaner on a damp cloth.

CAUTION! Rubber rollers can be damaged by some chemicals and solvents. Avoid using all solvents and untested chemicals on the rubber rollers.

Media Transport Belts

The media transport belts can become glazed with paper lint and ink from the media. They should be regularly cleaned with a mild household cleaner on a damp cloth.

CAUTION! Rena Care should NOT be used to clean the Media Transport Belts in the printer.
Media Transport Belts can be damaged by some chemicals and solvents. Avoid using all solvents and untested chemicals on the Media Transport Belts.

Cleaning the Media Sensor

Periodically check/clean the media sensor (paper sensor), located under the print carriage area of the printer. See Figure 27.
The sensor can be accessed by loosening the print unit securing knobs and sliding the print units toward the outside of the machine.
The sensor should be clean and free of accumulated paper dust. Use a vacuum with a soft brush attachment or dry compressed air to remove the dust.

CAUTION! Do not allow any liquids, chemicals or solvents to touch the sensor. If this occurs, the sensor will be damaged.

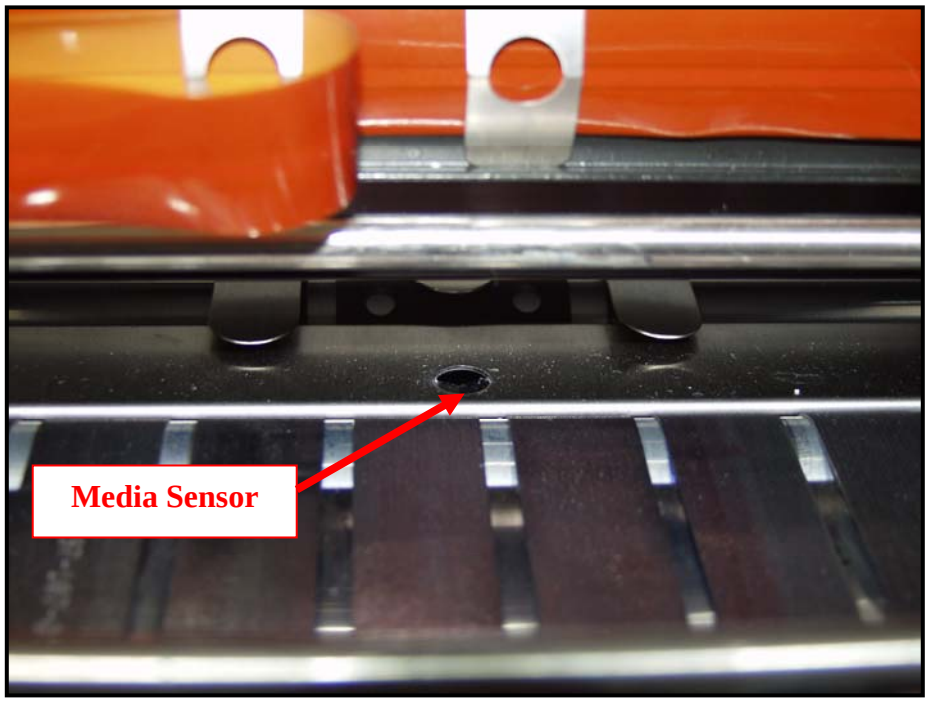


Figure 27

As viewed from the exit end of the printer.

Notes

Section 5 – Troubleshooting Guide

The following troubleshooting guides are provided to assist you in solving any problems that might occur with the Printer or its software. We have tried to make them as complete as possible. The best advice we can offer is to make sure that the system is setup properly, plugged in, that it has an adequate supply of ink before attempting to trouble shoot any problem.

HP Inkjet Print Cartridges

CONDITION	PROBLEM	SOLUTION
Black streaks in text ~~This is a sample of text showing black streaks in the copy.~~	Lint, ink, or paper dust on printhead. Head height too low	Clean the cartridge nozzles with a clean lint-free cloth moistened with distilled water. Raise head height.
Cartridge will not print, even if TEST or Purge is used.	Sheet is blank even after it has gone underneath cartridge(s).	Check to make sure the tape is off the printhead. Remove and reinsert the cartridge into the pen stall. Install a new print cartridge.
White streaks in text or graphics RENA Systems Inc. 136 Green Tree Road STE 140 Oaks, PA 19456-1069	Lint, dust or dried ink blocking printhead nozzles. Poor contact between printhead and cartridge stall contacts (pogo pins).	Clean the cartridge nozzles with a clean lint-free cloth moistened with distilled water. Clean contacts. Remove and reinsert the cartridge into the pen stall. Insert a new Print Cartridge.

WARNING

DO NOT REMOVE THE SIDE COVERS OF THE PRINTER!

THERE ARE HIGH VOLTAGES PRESENT BEHIND THE COVERS!

The Printer

CONDITION	PROBLEM	SOLUTION
Losing data; extra lines; printing strange characters.	Database problem. Communications Problem. Loosing Power.	Check data in database program. Check cable and connections. Monitor Power.
Media jams	Double feeding Media is curled or bent Media is too thin	Adjust Sheet Separators on feeder. Uncurl media. Media must be at least 0.008”.
No communication	Disconnected/damaged data cable. Improper port selection within printer driver.	Replace cable. Check driver port selection. Cycle printer power and reboot computer.
Can’t increase belt speed (No belt speed control)	Wrong printer driver or wrong belt speed selected.	Verify that the correct printer driver was loaded/selected. Check belt speed selection.
No motor drive	Motor circuit breaker tripped. Wrong printer driver selected.	Reset motor circuit breaker. Check/change printer driver choice to the appropriate driver.
Not operating at all.	No power.	Check power, on/off switch, power cord connections, and printers line fuses.
Counts pieces, but doesn’t printing on media.	Print Unit not positioned properly. Data out of print range.	Adjust printhead vertically. Adjust margin setting in layout software.
Not printing or counting.	Paper not passing over media sensor. Media sensor is dirty/damaged.	Readjust media side guide positions. Clean media sensor.
Printing light, missing parts of characters or dots	Clogged or dirty printheads. Running out of ink.	Purge and or clean cartridges. Replace inkjet cartridges.
Blurry address RENA Systems	Printhead height is too high.	Adjust printhead closer to the media using Media Thickness Adjustment Dial.
Split line of type RENA Systems Inc. 136 Green Tree Road STE 140 Oaks, PA 19456-1069	Line of type is being positioned across two printheads (cartridges). Example shows second line of the address being split between two ink cartridges.	Reposition the text in the layout so that it does not print across two printheads. If you must print across two printheads; adjust the positioning of the two printheads in relationship to each other using the Head Alignment tool Properties window of the printer driver.
Ghosting and or skewed line of type. RENA Systems Inc. 136 Green Tree Road STE 140 Oaks, PA 19456-1069	Media is slipping, hesitating or skewing as it is transported. All or part of image is printed with a ghost image (ghosting) or is skewing. Example shows part of the image (STE 140) ghosting and skewing.	Check the sheet separator adjustment. If separators are set too tight they can hold back on media. Check that the printhead carriage is set at the proper height. A printhead carriage that is set too high or too low may cause media to jam, hesitate, slip, or skew.

Printer Display Messages

MESSAGE	DESCRIPTION	SOLUTION
Printer Offline ENTER for Paper Feed	Pressing the ENTER key will put printer into the Paper Feed mode.	This feature can be used to check for proper media transport setup/adjustment.
Printer Online Waiting for Data	Printer is online, but has not received any data to print.	Send data to printer via software/computer.
Printer Offline Data Ready to Print	Printer is offline and has received data to print or still has data present from previous job.	Put printer online then press ENTER to start the feeding and printing process.
JAM: Reprint Lost Pieces	Printer has detected a paper jam while online, printing records. Correct problem then reprint lost/damaged pieces.	Clear Paper Jam. Check separation adjustment Check paper size (width) setting in software to be sure it matches actual piece width.
JAM: Check Printer Setup	Printer has detected a paper jam while in Paper Feed or Test Print mode.	Clear Paper Jam. Check separation adjustment Use a media length that matches size of currently set paper length (length previously set via software or TEST image). RENA TEST image = 6” x 9”.
PAUSE: Waiting for Data	Printer is waiting for data from the computer, or needs more time to receive/process data.	When more data is sent from computer, or printer finishes receiving/processing data then it will automatically continue.
PAUSE: Off-Line Pause	Printer received an “Off-Line” PAUSE (tray break) command from the software.	Press ONLINE key to continue.
PAUSE: Timed Pause-Wait	Printer was sent a Timed Pause (tray break) command via software.	Printer will automatically continue when time expires.
Out of Paper	No Paper Detected during feeding cycle.	Add material to the printer. Make sure the material is passing over the paper sensor. Make sure material is feeding.
Transport Time-Out	The printer has timed out and has stopped the transport. No data, no paper, no operator response, etc… for >5 minutes.	Press appropriate key to continue.

Head # Low: Press Enter	Printer's ink level monitor has calculated that cartridge # is almost empty. (# = cartridge position number)	If empty, replace cartridge and reset ink level monitor. If not empty, you may ignore message and or reset the ink level monitor.
Out of Memory Font	No enough memory for downloading a font	Reduce the number of different fonts you are trying to use from your software.
Out of Memory Char	No enough memory for downloading a single character	Reduce the number of characters you are trying to use from your software.
Error in Download Font	Encountered a wrong font Format Only font-format 0 supported.	Clear job and try again. If problem persists, contact software vendor and or test from a different software program.
Error in Download Char	Encountered a wrong character Format or Class. Only character format 4 (LaserJet Family - Raster), Class one and two are supported.	Clear job and try again. If problem persists, contact software vendor and or test from a different software program.
Error in ESC Sequence	The Escape command is formatted incorrectly.	Try again. If problem persists, report problem to software vendor.
Ignore Unknown ESC Comnd	The Escape command sent is not supported.	Try again. If problem persists, report problem to software vendor.

Notes

Appendix A – Envelope Imager XT 3.0/XT 4.0 Specifications

PRINT TECHNOLOGY	Envelope Imager XT 3.0 Inkjet, 6 HP 51645A High Capacity Inkjet Cartridges Envelope Imager XT 4.0 Inkjet, 8 HP 51645A High Capacity Inkjet Cartridges		
ADDRESS SPEED	Up to 26,000/hr - #10 Envelopes		
PRINT QUALITY (Dots Per Inch)	Print Quality	Dots Per Inch	Resolution (HxW)
	High Quality	600 dpi	600 x 600 dpi
	Letter Quality	300 dpi	600 x 300 dpi
	Standard Quality	200 dpi	600 x 200 dpi
	Draft Quality	150 dpi	600 x 150 dpi
IMAGE AREA	3” x 17” (Envelope Imager XT 3.0) 4” x 17” (Envelope Imager XT 4.0)		
PRINT ORENTATION	Normal and Reverse		
INK MONITOR	Via Display		
FONTS	All TrueType fonts available on PC		
PRINTS	Prints graphics, logos, and barcodes		
MATERIAL SIZE	Length – 5” to 17” Width – 3” to 13.5”		
MATERIAL THICKNESS	Up to 3/8”		
MEMORY	64 MB		
PRINT COLORS	HP 45A Style: Black, Versatile Black, RENA EasyInk, RENA EasyInk Aqueous, Fast Dry, Red, Blue, Green, and Yellow		
SOFTWARE	Windows™ Printer Drivers for Windows™ 98, 2000, NT, ME, and XP		
DIAGNOSTICS	Built into firmware		
FIRMWARE UPDATE	Via PC interface in flash proms		
PC INTERFACE	Centronics Parallel and USB		
COUNTERS	One operator resettable job counter, one permanent lifetime counter		
DIMENSIONS	11.5” H x 30” L x 23” W (29.2 cm H x 76.2 cm L x 58.4 cm W)		
WEIGHT	90 lbs. (40.9 kg)		
ELECTRICAL	115VAC, 50/60 Hz (special order: 240VAC)		
OPTIONS	Conveyor/Stacker, Dryer, and Feeders Special Order Left-to-Right Operation		

All Specifications Subject To Change Without Notice

Appendix B – Supplies, Service and Support

Supplies and Optional Hardware

The following supply items and optional hardware are available from authorized dealers for RENA Systems Inc.

Supplies:

Black Inkjet Cartridge	HP 51645A
Fast Drying Black Inkjet Cartridge	C6195A
Yellow Inkjet Cartridge	C6173A
Red Inkjet Cartridge	C6168A
Green Inkjet Cartridge	C6169A
Blue Inkjet Cartridge	C6170A
Versatile Black	C8842A
RENA EasyInk	C8715A
RENA EasyInk Aqueous (requires dryer)	C9007A

Optional Hardware:

Conveyor /Stackers, Feeders

Dryer (option for some conveyors)

Envelope Imager XT 4.0, with optional EasyFeed 120 Feeder, shown above.

Obtaining Supplies, Service and Support

Please contact your local Rena dealer to obtain supplies, service and support for your printer.

To locate a Rena dealer in your area, please click on the following link and fill out the form. http://www.renausa.com/dealerlocator.asp

Service should only be performed by a qualified Rena service person.

In addition, you may wish to log onto Rena Systems web site (www.renausa.com), and click on the "support" link. This area contains many useful resources.

Please click on the following "Warranty Registration " link to register your product with Rena Systems. http://www.renausa.com/support_warranty.htm

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